

ROY COOPER

MICHAEL S. REGAN
Secretary

LINDA CULPEPPER
Director



February 11, 2019

James Flechtner, Executive Director
Cape Fear Public Utility Authority
235 Government Center Drive
Wilmington, NC 28403

Subject: Additional Information Request
SSO Reporting During/After Hurricane Florence
Permit Number: WQCS00012

Dear Mr. Flechtner:

Division of Water Resources' Central and Regional staff are reviewing incident reports received during and after Hurricane Florence. Listed below are 18 incidents recorded from September 15th through September 20th 2018.

Several of the reports were initially assigned a default value of 100 gallons for the 24-Hour spill volume by staff in the Emergency Operations Center in Raleigh during the storm and these were subsequently changed some weeks later to -1 gallons to reflect a change in reported volume for the 5-Day report. It is believed that some incidents statewide were not necessarily spills (SSO) but other situations that were entered into our system as SSO's. Some of the incidents that show no 5-Day volumes may reflect this issue.

For us to better manage the environmental implications associated with the incidents, your collaboration documenting the actual or estimated spill volumes is appreciated. Therefore, for each location listed in the enclosed table, please identify the type of incident (SSO, other). If the incident was a SSO, estimate the volume released (start/stop time of SSO, containment measures, etc.). If this information is unknown, please document the conditions that prevented data collection (i.e. operator logs, etc.).

The Division acknowledges that historical rainfall and wind events like those during Florence may cause extensive damage and widespread power outages that affect sewer collection systems and treatment facilities, therefore, it is the responsibility of the permittee and regulatory agency to ensure that (1) provisions are taken to prevent sewage releases and (2) collect pertinent sewer volume information for proper reporting when these types of incidents are unavoidable.



Incident #	Date	Incident Location	24-Hr Report	5-Day Report	24-Hr Report	5-Day Report
			Total Volume (gallons)	Total Volume (gallons)	Volume Reached Surface Water (gallons)	Volume Reached Surface Water (gallons)
201802837	9/15/2018	M/H outside of Athens Ln P/S - Flooding	-1			
201802838	9/15/2018	M/H outside of Uppereach P/S No Power Brought generator and pumped down stopped at 1:00pm	-1			
201802839	9/15/2018	M/H outside of Towels Rd P/S Flooding	-1			
201802840	9/15/2018	M/H outside of Landfall 2 P/S off of Pembroke Jones Dr Generator ran out of fuel Fueled generator and pumped down st	-1			
201802841	9/15/2018	C/O for 1018 43rd st System inundation	-1			
201802047	9/17/2018	Manhole at Woodlawn Ave. - pump station (P/S) 14	-1	100		
201802053	9/17/2018	Manhole at 1002 Cypress Dr - pump station (P/S) 2	100	100		
201802055	9/17/2018	Windward Oaks manhole - P/S 103	100	100		
201802058	9/17/2018	Manhole at 2200 Chestnut St.	100	100		
201802061	9/17/2018	Manhole at Caneel Cove Dr - P/S 30	100	100		
201802062	9/17/2018	Manhole at 300 block of Williamson Dr - P/S 17A	100	100		
201802065	9/17/2018	Manhole at 110 Travelers Court - P/S 130	100	100		
201802066	9/17/2018	Manhole at Prestwick Lane	100	100		
201802200	9/18/2018	1400 block of Market St.	100	10,500		10,500
201802201	9/18/2018	Manhole at 2000 Block of Princess Place Drive	100	100		
201802204	9/18/2018	308 Colquitt Drive (P/S 129)	100	100		
201802544	9/19/2018	Clean out at Halcyon Lane, Avenel SD, Wilmington	100	100		
201802595	9/20/2018	Manhole at 2nd & Dawson	100	100		

Please provide the requested information regarding each of the incidents listed above no later than February 25 2019. Information should include but is not limited to: identifying which incidents were SSO's, estimating released volumes, documenting location-specific conditions, providing any updates to the operation plans to ensure complete reporting under emergency situations. Please contact me with any questions that may arise regarding this matter.

Sincerely,

DocuSigned by:

E3ABA14AC7DC434...

Morella Sanchez-King, Interim Regional Supervisor
Water Quality Regional Operations Section
Wilmington Regional Office
Division of Water Resources, NCDEQ

Cc: WQS Wilmington Regional Office



Noncompliance Info

2018 ESI Annual Report

Please list any noncompliant events or notices of violation received since you last reported

No changes needed

Describe noncompliance:	Root cause of noncompliance:	Method of determining root cause:	Date reported:	Did you receive a NOV or other action?	Was an enforcement action taken?	What action(s) was taken to prevent reoccurrence?
Quincey Alley	Pipe Failure	5-Whys	4/4/2018	No	No	This spill was caused by a collapsed pipe that blocked flow and caused 200 gallons to spill and 100 gallons of wastewater to reach the Cape Fear River. CFPUA construction crews made the necessary repairs to the collapsed section of pipe.
820 Wellington	Pipe Failure	5-Whys	5/2/2018	No	No	This SSO was the result of a pipe failure that caused 950 gallons of wastewater to spill and reach Greenfield Lake. CFPUA crews responded to the call and cleared a blockage with a vactor truck. CFPUA construction crews made the repair to the broken pipe.
South 22nd and Creecy	Rain Event	5-Whys	5/19/2018	No	No	Was caused by heavy rain and flooding in the area. 450 gallons of wastewater spilled, reaching Burnt Mill Creek.
Grady Ave	Rain Event	5-Whys	5/28/2018	No	No	Once the system returned to normal operation, CFPUA crews cleaned the vicinity of the spill. CFPUA crews responded and began pump and haul operations until the normal operations resumed.
Shinwood Rd	Rain Event	5-Whys	5/28/2018	No	No	
ps 10	power outage	5-Whys	7/17/2018	No	No	This SSO was caused by a power outage as a result of a lightning strike to Pump Station 10 on One Tree Hill Way.

Noncompliance Info

2018 ESI Annual Report

water street	contractor	5-Whys	7/18/2018	No	No	While conducting routine inspections of work being conducted for River Place Development a CFPUA Utility Inspector discovered a sanitary sewer overflow from an unapproved bypass operation. The contractor had changed locations of the bypass operation and placed a plug in the wrong line causing the sewer to back up and overflow. CFPUA crews estimated that approximately 150 gallons of untreated sewer reached a storm water catch basin that flows to the Cape Fear River. CFPUA inspectors directed the contractor to relocate the sewer plug to a different line before resuming the bypass operation. The immediate 24 hour verbal notification was given to Jerry Belcher with The Division of Emergency Management at 7:55pm. No samples were taken based on the low volume.
river place manhole	contractor	5-Whys	7/24/2018	No	No	Crews were notified and responded to an Sanitary Sewer Overflow on 7/24/2018 at the construction site for River Place Development bypass pumping operation. Time of first notification was 7:30 pm it was estimated that approximately 2750 gallons spilled directly into a storm drain tributary to the Cape Fear River and crews were only able to recover 200 gallons. The spill was stopped at 7:55 pm when CFPUA Crews shut off PS# 11 at Market street so the bypass pump suction lines could be cleaned.

Noncompliance Info

2018 ESI Annual Report

318 parkway dr	rain event	5-Whys	7/25/2018	No	No	CFPUA crews were notified at 10:55 am today of a sanitary sewer overflow at 318 Parkway Dr. off of S. College road. Responding crews began pump and haul operations to control the overflow until a temporary manned bypass operation was established. The estimated volume of the overflow was 3000 gallons based on the amount recovered from the storm water drainage ditch and culvert. The ditch was clogged and made the sewer easily recoverable. The event stop time was 1:30 pm when all overflow had ceased. Dean Hunkle with DWQ was notified at 1:02 pm 7/25/2018 The bypass will remain set up until the heavy rains have left the area. We have staff on site and a spare redundant pump in place if needed.
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Noncompliance Info

2018 ESI Annual Report

klein rd	rain event	5-Whys	7/29/2018	No	No	CFPUA crews responded to several locations of sanitary sewer overflows along Burnt Mill Creek Today. It was determined that due to the sever heavy rainfall and already saturated ground conditions that flooding contributed to system inundation. CFPUA pump station crews were already out during the night to insure all stations were operational. The locations of the SSO was Kline road, 21st street, Wallace Park areas. These sites were monitored by staff and Vactor crews conducted pump and haul operations until the spills had subsided. These flooding conditions appeared to be compounded by the high tide slowing the runoff. The volume of the spills from all three observed locations is estimated to be 1575 gallons total.
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Noncompliance Info

2018 ESI Annual Report

burnt mill creek	rain event	5-Whys	7/31/2018	No	No	1. Grady Ave. discovered at 9:40 am stopped at 440 pm 5 gpm x 420 min = 2100 gallons escaped during pump and haul operations while switching trucks. 2. 449 21st street start 11:00 am and ended at 2:00 pm 5 gpm x 180 min = 900 gallons 3. 2016 Klein Rd. start 12:25 pm and stopped at 2:00 pm 5 gpm x 95 min = 475 gallons 4. 21st and Chestnut Street start 12:25 pm stopped at 4:30 pm 5 gpm x 245 min = 1225 gallons 5. Wallace Park Sand Box start 11:30am stopped at 4:30 pm 5 gpm x 300 min = 1500 gallons CFPUA crews investigated SSOs along Burnt Mill Creek today after the heavy rains. We had reports of several locations with sanitary sewer overflows that are listed with the estimated quantities. Crews conducted pump and haul operations at several locations to reduce impact of overflow. All spills were related to the heavy rainfall and inundation along Burnt Mill Creek. Sampling is being conducted by CFPUA laboratory staff.
burnt mill creek	grease	5-Whys	7/31/2018	No	No	Crews were able to conduct pump and haul operations while the blockage was removed. Crews were also able to minimize the spill by capturing 3000 gallons and re-entering it back into the sewer system. This spill was tributary to McCumbers ditch and eventually enters Burnt mill creek also. Sampling is being conducted by CFPUA laboratory staff. All spills were estimated by visual observations made at the sites. Each site has been visited by CFPUA back up ORC.

Noncompliance Info

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4544 Parmele Rd	contractor	5-Whys	8/1/2018	No	No	Through pump and haul operations CFPUA vactor trucks recovered 33,000 gallons of sewer and storm water. CFPUA crews arrived at the site and determined that a valve box had been hit by a mini excavator that was working along the property line. CFPUA construction crews made the repair to the broken valve.
Athens Lane Pump Station	Hurricane Florence	5-Whys	9/15/2018	No	No	At 8:00 am on 9/15 crews reported flooding in the area of the pump station and noted that the pumps at the station were having a hard time keeping pace with the flow and the wet well was rising. Due to flooding in the area, crews were unable to confirm if sanitary sewer was leaving the system. There was no change in the area on 9/16 when crews visited the station. During the 9/17 site visit the flood waters had receded enough to enable the station to manage the increase in volume and crews reported the wet well was high, but the generator was running with 1/4 tank of fuel. On 9/18 the generator was refueled and running, wet well levels had dropped.

Noncompliance Info

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Upper Reach Pump Station	Hurricane Florence	5-Whys	9/15/2018	No	No	Station lost commercial power and no generator was on site. A portable generator was brought to the site and the station was pumped down. Staff was able to estimate volume of this spill from a picture taken of the site. A bolt down manhole was weeping, staff estimated flow to be about 5 gpm x 30 minutes = 150 gallons spilled, none was captured.
Towles Road Pump Station	Hurricane Florence	5-Whys	9/15/2018	No	No	At 1:50 pm on 9/15 crews reported flooding in the area of the pump station. The station maintained commercial power until 9/17, there was no generator on site and site was visited daily. On 9/18 crews reported still no power and the wet well was about 3 inches from the top. Commercial power was restored on 9/19. Due to flood waters in the area crews were unable to confirm if sanitary sewer was leaving the system. SCADA at this station was damaged during the storm but it was visited daily.
Landfall 2 Pump Station	Hurricane Florence	5-Whys	9/15/2018	No	No	On 9/15 at 3:15 pm it was reported that the manhole outside of Landfall 2 pump station was overflowing. It was identified that the generator ran out of fuel, crews were able to get the generator refueled and pump down the station stopping the spill at 5:15 pm. The generator maintained the station until power was restored on 9/17. Staff estimated the flow to be about 15 gpm X 120 mins = 1800 gallons, none was captured.

Noncompliance Info

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1018 43rd Street	Hurricane Florence	5-Whys	9/15/2018	No	No	At 3:30 pm on 9/15 staff received a call from emergency call center for sewer coming out of a clean out at 1018 43rd St. Staff was onsite in the area at 4:08 pm to investigate and reported system inundation due to flooding in the area. System returned to normal when flood waters receded. No additional reports from customer were received after staff responded on 9/15/18.
Windchime Dr	Hurricane Florence	5-Whys	9/16/2018	No	No	On 9/16 at 8:00 am staff received a call from a local utility contractor reporting a possible overflow. Crews responded identifying that the generator at Pump Station 36 has tripped out. Staff restarted the generator stopping the spill at 9:30 am, the generator continue to run until commercial power was restored on 9/17. Staff was able to estimate volume of spill from a picture the utility contractor emailed on 9/16. Staff estimated flow to be about 10 gpm x 90 minutes = 900 gallons spilled, none was recovered.

Noncompliance Info

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15th & Ann and 15th & Nun	Hurricane Florence	5-Whys	9/16/2018	No	No	Staff reported manholes weeping at the intersections of 15th & Ann and 15th & Nun. Staff indicated that the gravity mains in the Burnt Mill Creek outfall were inundated due to flooding. System returned to normal once flood waters receded which we believe was on 9/17. No additional reports were received for this location. Based on the 2 manholes that were reported as weeping and an estimated 24 hour time period until the flooding receded from the reported time and a 5 gallon per minute estimate on a weeping manhole - we estimate approximately 14,400 gallons - 5 gpm X 24 hrs(1440 minutes) = 7200 X 2 manholes = 14,400 gallons - this estimate is purely a guess using best professional judgement based on records review and a worst case scenario of 24 hours
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Noncompliance Info

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Woodlawn Ave	Hurricane Florence	5-Whys	9/16/2018	No	No	was inundated due to flooding. At 9:44 am it was reported that both pumps in the station had tripped, CFPUA electrician was called to access. At 10:13 am staff received a request for a sump pump in order to be able to fix the problem. Staff pumped down the dry well and was able to get pump # 1 running on bypass. Based on staff interviews pump #1 is estimated to have been returned to service approximately 10:30 am and able to pump down the wet well. Motor # 2 was shorted to ground from being submerged. On 9/18 staff pulled pump # 2 to make repair. Station had generator power. On 9/19 staff reported generator continued to run, the pumps were operational and the wet well was high but no indication of water leaving the station. Commercial power was restored to the station on 9/21. Although manholes where SSO reported could not be seen based on customer reports they are estimated at 10gpm for the time pump #1 was out of service which is estimated at 46 minutes which would calculate to a volume spilled of 460 gallons at 2 separate manholes for a total estimated
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Noncompliance Info

2018 ESI Annual Report

1002 Cypress Dr	Hurricane Florence	5-Whys	9/17/2018	No	No	Staff reported a manhole weeping on Woodlawn Ave. It was noted that Pump Station 14 was inundated due to flooding, but it was operational throughout the event. Station visited daily and the system returned to normal when flooding receded on 9/17. Based on the manhole that was reported as weeping and an estimated 24 hour time period until the flooding receded from the reported time and a 5 gallon per minute estimate on a weeping manhole - we estimate approximately 7,200 gallons - 5 gpm X 24 hrs(1440 minutes) = 7200 gallons - this estimate is purely using best professional judgement a guess based on records review
2100 East Lake Shore Dr	Hurricane Florence	5-Whys	9/17/2018	No	No	Staff reported a manhole weeping at 2200 Chestnut St. and indicated that the system was inundated due to flooding along the Burnt Mill Creek Outfall. System returned to normal when flood waters receded. Based on records review it appears flooding receded on 9/17 so using a 12 hour time period, which would be worst case scenario, and calculating the weeping manhole at 5 gpm we can guess using best professional judgement that the spill volume was an estimated 3,600 gallons. 5gpm X 12 hours(720 minutes) = 3,600 gallons
2200 Chestnut St	Hurricane Florence	5-Whys	9/17/2018	No	No	power at Pump Station 103. Crews

Noncompliance Info

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103 Windward Oaks	Hurricane Florence	5-Whys	9/17/2018	No	No	Staff report manhole weeping outside of Pump Station 30. It was reported that there was a commercial power bump causing the onsite generator lost a phase. Generator was repaired and providing power to the pump station by 12:30 pm. Staff estimate flow to be about 5 gpm x 30 mins = 150 gallons spilled, none was recovered.
Caneel Cove Dr	Hurricane Florence	5-Whys	9/17/2018	No	No	Staff responded and reported that the pump/control room at Pump Station 17A had water in it and the pumps and controls were completely submerged. Staff began pumping water out of the control room in able to get to the pumps. Staff was able to get pump #2 running and rewired the controls for pump # 2 to run off of a float and a 20 minute off delay relay.
300 Block of Williamson Dr	Hurricane Florence	5-Whys	9/17/2018	No	No	at 110 Travelers Ct. and reported
110 Travelers Ct	Hurricane Florence	5-Whys	9/17/2018	No	No	Staff report a manhole weeping at Prestwick Ln. Staff indicated the gravity main was inundated due to flooding. System returned to normal when flood waters receded. Records review indicates flooding receded on 9/17 so worst case scenario is the manhole overflowed for 9.5 hours at 5 gpm making a guess using best professional judgement a max of 2,850 gallons could have been spilled at this location

Noncompliance Info

2018 ESI Annual Report

Prestwick Ln	Hurricane Florence	5-Whys	9/17/2018	No	No	Staff report a manhole weeping at 308 Colquitt Ln. It was identified that a pump stopped at Pump Station 129, due to flooding in the area one pump was not sufficient to keep up with the flow. Staff pulled pump #2 cleaned pump of debris and replaced it. The station was returned to service and spill stopped at 12:30pm. Staff estimated flow to be about 5 gpm x 260 mins = 1300 gallons spilled, none was recovered.
308 Colquitt Ln	Hurricane Florence	5-Whys	9/18/2018	No	No	weeping in the 2000 block of
1400 Block of Market St	Hurricane Florence	5-Whys	9/18/2018	No	No	A near by storm drain failed and washed the road out causing the sewer main to collapse. CFPUA construction crews responded and made repairs the to main. Approximately 10,500 gallons of sewer was spilled, none was recovered.
Halcyon Lane and Avenel SD	Hurricane Florence	5-Whys	9/19/2018	No	No	Pump Station 139 had high wet well due to flooding in the area. Appears that a clean out cap had been removed causing the clean out to run over. Cap was replaced stopping the spill at 7:00 pm. Staff estimated flow to be about 10 gpm x 30 mins = 300 gallons spilled, none was recovered.
2nd and Dawson	Hurricane Florence	5-Whys	9/20/2018	No	No	4th & Wooster and 2nd & Dawson.
south kerr and emerson	debris in line	5-Whys	10/1/2018	No	No	Vactor truck jetted the line and vacuumed up the debris to clear the blockage.

Noncompliance Info

2018 ESI Annual Report

						operators identified and stopped a release of biosolids in an area of the plant that is currently under construction and being managed by contractors.
Southside	plant bypass	5-Whys	10/27/2018	No	No	Rainwater infiltrated the control panel for the sludge feed pump connected to the portable belt filter press. The rainwater caused the PLC to turn the sludge pump on overflowing the press and containment area. Due to the heavy rains and the placement of temporary facilities during this construction project, the overflow continued for several hours and approximately 30,000 gallons reached a storm drain entering the Cape Fear River. Lab staff collected samples upstream and downstream of the plant to evaluate environmental impacts.
Northside	Open Cleanout cap	5-Whys	11/20/2018	No	No	
manhole 650 Willington	debris in line	5-Whys	11/22/2018	No	No	M/H ring and cover had been knocked off which allowed debris to enter manhole. Grease accumulation on debris contributed to the blockage
manhole farmers st	grease	5-Whys	11/24/2018	No	No	jet crews cleared the blocked and cleaned the main
762 mallow road	debris in line	5-Whys	12/4/2018	No	No	A manhole ring and cover dislodged by storm debris clean up. The manhole had storm debris blocking the line, crews were able to remove the blockage

List other methods for determining root cause below:

End of Page - Please Go to Next Tab

From: [Beth Eckert](#)
To: [Vaughn Hagerty](#)
Subject: FW: Need your thoughts...
Date: Thursday, July 18, 2019 11:32:35 AM

From: Beth Eckert <Beth.Eckert@cfpua.org>
Sent: Wednesday, September 19, 2018 1:55 PM
To: Morella King <morella.sanchez-king@ncdenr.gov>
Cc: Milton Vann <Milton.Vann@cfpua.org>; Robert Daughtry <Robert.Daughtry@cfpua.org>; Dean Hunkele <Dean.hunkele@ncdenr.gov>; Frank Styers <Frank.Styers@cfpua.org>; Jim Flechtner <jim.flechtner@cfpua.org>; Elizabeth Severt <Elizabeth.Severt@cfpua.org>; Christopher Benegasi <Christopher.Benegasi@cfpua.org>
Subject: RE: Need your thoughts...

Morella,

1. The Northside and Southside Wastewater Treatment Systems are both on commercial power. They both are experiencing high flows going through the facilities and operations staff are making adjustments to the processes to optimize treatment to resume normal operations.
2. We have reported to NCDEQ 20 SSOs within the collection system from 9/15/18 through 9/18/18. Due to the conditions these SSOs occurred under, we do not have volume estimates, but they were due to flooding in stations, outfalls, power outages, and /or washouts due to storm drains.
3. At the beginning of the storm CFPUA had 123 generators strategically placed and operating at pump stations. Since winds died down to below 50 mph and daybreak came on the morning of 9/15/18, crews have been consistently evaluating the system, refueling generators, moving portable generators from one location where it is no longer needed to others where it still needed. Staff were pumping down stations and moving to the next, setting up bypasses, and /or pumping and hauling 24/7 in order to minimize the systems impact on the environment. Currently, many of the stations are back on commercial power. Due to the number still on generator power, CFPUA has 4 crews still performing refueling operations and other crews performing on going system checks.
4. SCADA is operational within the WWTPs and the collection system pump stations.

If you need additional information please let me know.

Thanks,
Beth Eckert

From: King, Morella s <morella.sanchez-king@ncdenr.gov>
Sent: Wednesday, September 19, 2018 12:10 PM
To: Beth Eckert <beth.eckert@cfpua.org>
Subject: Need your thoughts...

Beth:

Could you provide three bullets (as talking points) on the conditions (in general) of the wastewater treatment systems in Wilmington, as a result of Florence?

Thanks,

Morella

==

Morella Sanchez King

Wilmington Regional Office: 127 Cardinal Drive Extension; Wilmington, NC 28405

morella.sanchez-king@ncdenr.gov; (P)910 796 7218 - (F) 910 350 2004



Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: [Beth Eckert](#)
To: [Vaughn Hagerty](#)
Subject: FW: report forms
Date: Thursday, July 18, 2019 11:10:41 AM
Attachments: [SKM_364e18091708160.pdf](#)

From: Beth Eckert <Beth.Eckert@cfpua.org>
Sent: Friday, September 21, 2018 12:47 PM
To: Morella King <morella.sanchez-king@ncdenr.gov>; Dean Hunkele <Dean.hunkele@ncdenr.gov>
Cc: Steven Styers (Steven.Styers@cfpua.org) <Steven.Styers@cfpua.org>; Milton Vann <milton.vann@cfpua.org>; Robert Gunter (Robert.Gunter@cfpua.org) <Robert.Gunter@cfpua.org>; Frank Styers <frank.styers@cfpua.org>; Elizabeth Severt <elizabeth.severt@cfpua.org>
Subject: FW: report forms

Morella

Attached is the 5-day report for the Southside WWTP by pass that occurred late last week. If you need any additional information please let me know.

Thanks,
Beth Eckert

From: [Beth Eckert](#)
To: [Vaughn Hagerty](#)
Subject: FW: Southside WWTP Generator failure
Date: Thursday, July 18, 2019 11:15:08 AM

From: Beth Eckert <Beth.Eckert@cfpua.org>
Sent: Saturday, September 15, 2018 6:59 AM
To: DMF ncdenr <DMF.SpillNotification@ncdenr.gov>; Beth Eckert <Beth.Eckert@cfpua.org>
Subject: RE: Southside WWTP Generator failure

Bypass status ceased yesterday at 1620 once the interim screw pump generator was restored to operation. Volumes will be reported once they have been determined.

The main generator was repaired late last night as well.

Thanks,
Beth

Sent from [Mail](#) for Windows 10

From: Beth Eckert
Sent: Friday, September 14, 2018 8:01:16 PM
To: DMF ncdenr; Milton Vann; Frank Styers
Subject: Southside WWTP Generator failure

At approximately 640 am on 9/14/18 the Southside WWTP on River Road in Wilmington NC began experiencing a bypass of some of the treatment processes at the plant into the Cape Fear River due to backup generator failures. Attempts to restart failed. CFPUA has contacted Gregory Poole who has responded and they are driving a part in from another city to repair the generator. At this time it is an ongoing event so a volume is currently unknown. Once the generator is back in operation we will calculate volumes and evaluate impacts and update this report.

If you have questions prior to the follow up report please contact me at 910-524-4133

Sincerely,
Beth Eckert
Environmental Management Director

Sent from [Mail](#) for Windows 10

From: [Robert Daughtry](#)
To: [Robert Daughtry](#)
Subject: FW: SSO's #2
Date: Tuesday, September 18, 2018 6:55:04 AM

Robert Daughtry, CO, CS 4
Collection System Superintendent
633 Groundwater Way
Wilmington NC 28411
Ph. (910)332-6637

From: Christopher Benegasi
Sent: Monday, September 17, 2018 2:56 PM
To: Beth Eckert <Beth.Eckert@cfpu.org>
Cc: Robert Daughtry <Robert.Daughtry@cfpu.org>
Subject: SSO's

9/15/18

8:00am M/H outside of Athens Ln P/S - Flooding

12:30pm M/H outside of Uppereach P/S – No Power – Brought generator and pumped down stopped at 1:00pm

1:50pm M/H outside of Towels Rd P/S – Flooding

3:15pm M/H outside of Landfall 2 P/S off of Pembroke Jones Dr – Generator ran out of fuel – Fueled generator and pumped down stopped at 5:15pm

3:30pm C/O for 1018 43rd st – System inundation

9/16/18

8:00am M/H at Windchime Dr – P/S 36 Generator tripped out – Restarted generator stopped at 9:30am

11:00am M/H at 430 Sharon Dr – P/S 39 Inundated due to flooding

2:00pm 15th & Ann and 15th & Nun – Gravity mains Inundated due to flooding

8:15pm M/H at Woodlawn Ave – P/S 14 Inundated due to flooding

9/17/18

5:00am M/H at 1002 Cypress Dr – P/S 2 Inundated due to flooding

8:30am M/H at 2100 East Lake Shore Dr – P/S 2 Inundated due to flooding

9:30am M/H at 2200 Chestnut St – System Inundation due to flooding along Burnt Mill Creek Outfall

10:40am M/H at P/S 103 Windward Oaks – Generator tripped out – Reset Generator stopped at
1:40pm

12:00pm M/H at Caneel Cove Dr – Power outage at P/S 30

12:45pm M/H at 300 Block of Williamson Dr – P/S 17A Control panel flooded

1:00pm M/H at 110 Travelers Ct – P/S 130 pump tripped out – Reset pump stopped at 2:00pm

2:30pm M/H at Prestwick Ln – Gravity main Inundated due to flooding

Chris Benegasi
Collections System Supervisor
Christopher.benegasi@cfpua.org
O: 910-332-6496
M: 910-367-8009

From: [Robert Daughtry](#)
To: [Robert Daughtry](#)
Subject: FW: SSO's #3
Date: Tuesday, September 18, 2018 5:58:49 PM

Robert Daughtry, CO, CS 4
Collection System Superintendent
633 Groundwater Way
Wilmington NC 28411
Ph. (910)332-6637

From: Christopher Benegasi
Sent: Tuesday, September 18, 2018 3:42 PM
To: Beth Eckert <Beth.Eckert@cfpua.org>
Cc: Robert Daughtry <Robert.Daughtry@cfpua.org>
Subject: SSO's

9/15/18

8:00am M/H outside of Athens Ln P/S - Flooding

12:30pm M/H outside of Uppereach P/S – No Power – Brought generator and pumped down stopped at 1:00pm

1:50pm M/H outside of Towels Rd P/S – Flooding

3:15pm M/H outside of Landfall 2 P/S off of Pembroke Jones Dr – Generator ran out of fuel – Fueled generator and pumped down stopped at 5:15pm

3:30pm C/O for 1018 43rd st – System inundation

9/16/18

8:00am M/H at Windchime Dr – P/S 36 Generator tripped out – Restarted generator stopped at 9:30am

11:00am M/H at 430 Sharon Dr – P/S 39 Inundated due to flooding

2:00pm 15th & Ann and 15th & Nun – Gravity mains Inundated due to flooding

8:15pm M/H at Woodlawn Ave – P/S 14 Inundated due to flooding

9/17/18

5:00am M/H at 1002 Cypress Dr – P/S 2 Inundated due to flooding

8:30am M/H at 2100 East Lake Shore Dr – P/S 2 Inundated due to flooding

9:30am M/H at 2200 Chestnut St – System Inundation due to flooding along Burnt Mill Creek Outfall

10:40am M/H at P/S 103 Windward Oaks – Generator tripped out – Reset Generator stopped at 1:40pm

12:00pm M/H at Caneel Cove Dr – Power outage at P/S 30

12:45pm M/H at 300 Block of Williamson Dr – P/S 17A Control panel flooded

1:00pm M/H at 110 Travelers Ct – P/S 130 pump tripped out – Reset pump stopped at 2:00pm

2:30pm M/H at Prestwick Ln – Gravity main Inundated due to flooding

9/18/18

7:10am M/H at 308 Colquitt Ln – P/S 129 Pump stopped up and had to be pulled and cleaned. Due to flooding 1 pump was not able to keep up with flow. Stopped at 12:30pm

9:30am M/H at 2000 Block of Princess Place Dr – Burntmill Creek outfall Inundated due to flooding.

11:30am 1400 Block of Market St – Storm drain washed road out causing sewer main to collapse. Crews are on site making repair.

Chris Benegasi
Collections System Supervisor
Christopher.benegasi@cfpua.org
O: 910-332-6496
M: 910-367-8009

From: [Robert Daughtry](#)
To: [Beth Eckert](#); [Elizabeth Severt](#)
Subject: FW: SSO's
Date: Tuesday, February 12, 2019 3:04:19 PM

Fyi

Robert Daughtry, CO, CS 4
Collection System Superintendent
633 Groundwater Way
Wilmington NC 28411
Ph. (910)332-6637

From: Beth Eckert <Beth.Eckert@cfpua.org>
Sent: Tuesday, September 25, 2018 1:17 PM
To: Morella King <morella.sanchez-king@ncdenr.gov>; DMF ncdenr <DMF.SpillNotification@ncdenr.gov>
Cc: Frank Styers <Frank.Styers@cfpua.org>; Robert Daughtry <Robert.Daughtry@cfpua.org>; Dean Hunkele <Dean.hunkele@ncdenr.gov>; Elizabeth Severt <Elizabeth.Severt@cfpua.org>; Christopher Benegasi <Christopher.Benegasi@cfpua.org>
Subject: RE: SSO's

Morella / Dean

In reviewing the information in the BIMS system the SSOs we submitted for the 15th below have not been entered. I am just following up to ensure you have them. As you can see below the notification was send at 654 am on the 16th.

We still would like to be able to lump together these events into one event due to Hurricane Florence if at all possible.

Thanks,
Beth Eckert

From: Beth Eckert
Sent: Sunday, September 16, 2018 6:54 AM
To: Morella King <morella.sanchez-king@ncdenr.gov>; DMF ncdenr <DMF.SpillNotification@ncdenr.gov>
Cc: Frank Styers <frank.styers@cfpua.org>; Robert Daughtry <robert.daughtry@cfpua.org>; Dean Hunkele <Dean.hunkele@ncdenr.gov>
Subject: FW: SSO's

Morella
While evaluating the system, checking pump stations and their fuel situations yesterday we identified several areas around pump stations where either the manholes near the station or the

station itself. The information we have is listed below along with the status when we left them. We do not have any estimates on volumes as they may be ongoing and based on the expansion over night of the flooding within Wilmington and our service area, there is probably other issues out there that we are not aware of. We will have limited access to stations and the system today due to the flooding but will update you when we have more information.

Also, Southside WWTP is back on commercial power. Northside is still on generator and we are working with the EOC to get a fuel delivery for the plants as well as the generators at the pump stations.

Thanks, Beth Eckert

Sent from [Mail](#) for Windows 10

From: Christopher Benegasi
Sent: Saturday, September 15, 2018 10:11:24 PM
To: Beth Eckert
Cc: Robert Daughtry
Subject: SSO's

9/15/18

8:00am M/H outside of Athens Ln P/S - Flooding

12:30pm M/H outside of Uppereach P/S – No Power – Brought generator and pumped down stopped at 1:00pm

1:50pm M/H outside of Towels Rd P/S – Flooding

3:15pm M/H outside of Landfall 2 P/S off of Pembroke Jones Dr – Generator ran out of fuel – Fueled generator and pumped down stopped at 5:15pm

3:30pm C/O for 1018 43rd st – System inundation

Chris Benegasi
Collections System Supervisor
Christopher.benegasi@cfpua.org
O: 910-332-6496
M: 910-367-8009

From: [Carel Vandermeyden](#)
To: [Jordan Evans](#)
Subject: Fwd: Potential SSO locations reported
Date: Monday, September 17, 2018 9:53:15 AM

Fyi

Sent from my iPhone

Begin forwarded message:

From: Christopher Benegasi <Christopher.Benegasi@cfpua.org>
Date: September 17, 2018 at 9:34:29 AM EDT
To: Frank Styers <Frank.Styers@cfpua.org>, Florence <Florence@cfpua.org>
Subject: Re: Potential SSO locations reported

Crews are on the way.

Sent from my Verizon Smartphone

On Sep 17, 2018 9:32 AM, Frank Styers <Frank.Styers@cfpua.org> wrote:

SSO's have been reported and need to be investigated at the following locations when possible.

- 2200 block of Chestnut Street
- Chestnut Street near Princess – near cemetery
- Woodlawn (between Greenfield Lake and CBR)

From: [Beth Eckert](#)
To: [Andrea Jordan](#)
Subject: HURRICANE FLORENCE - Additional Information Request Cover Letter.doc
Date: Monday, February 25, 2019 1:56:00 PM
Attachments: [HURRICANE FLORENCE - Additional Information Request Cover Letter.doc](#)



Cape Fear Public Utility Authority

Stewardship. Sustainability. Service.

February 25, 2019

Morella Sanchez-King
Interim Regional Supervisor
Water Quality Regional Operations Section
Wilmington Regional Office
Division of Water Resources, NCDEQ
127 Cardinal Drive Extension
Wilmington, North Carolina 28405

Subject: Additional Information Request
SSO Reporting During/After Hurricane Florence
Permit Number: WQCS00012

Dear Ms. Sanchez-King:

I am in receipt of your February 11, 2019 letter requesting additional information for Sanitary Sewer Overflows (SSO) reported during and after Hurricane Florence. In the attached spreadsheet you will find the additional information requested for each SSO. After a careful review of records, which included operational logs, operator notes, investigative discussions, and Maximo work orders, we have provided as much detail for each incident as possible at this time. In some cases, utilizing best professional judgement staff were able to estimate spill volumes. These estimated volumes are based on a worst-case calculation given the conditions recorded.

CFPUA worked diligently to record as much information as possible during this historic event, while also preparing and responding before, during, and afterwards to minimize negative impacts on the system and the environment. Staff did an excellent job of managing this event, and the challenges it presented, but with any situation you can always identify opportunities for improvement. This event is not an exception to that rule. CFPUA had staff assigned who were dedicated to ensuring proper documentation was gathered. However, once an event has lasted several days, having additional staff dedicated to assist with the compiling of this data daily would improve the process. This would also enable staff to begin closing the loop on

investigating and completing 5-day reports to ensure necessary details are gathered and reported, when possible.

In addition to the 18 incidents that were in your request letter, staff identified 3 spills in our records which were reported to NCDEQ via email on September 16, 2018. The details for these spills can be found in the attached spreadsheet along with the others such that NCDEQ can include them in your records.

The information provided in the attached spreadsheet along with the presentation, we will provide to your staff on Friday, should provide a more thorough explanation of CFPUA's preparation and response to this event. If you have any additional questions or comments, please contact either Robert Daughtry, 332-6637, or Beth Eckert, 332-6646.

Sincerely,

James R. Flechtner, PE
CFPUA - Executive Director

Enclosure: SSO Report

CFPUA Response to Hurricane Florence



October 10, 2018



Key Points

- CFPUA drinking water treatment plants continued to meet all state and federal standards during and after the storm.
- Water service was nearly continuous to over 68,000 accounts, with only three homes in Middle Sound Loop temporarily losing service.
- The temporary roof repair at Sweeney Water Treatment Plant is complete.
- Damage assessments completed at all treatment plants, well sites, and at every pump station.
- Staff is determining costs eligible for insurance claim and FEMA reimbursement.
- CFPUA staff worked continuously through the storm with over 3,000 extra hours logged.



Infrastructure Preparation



- Deployed and tested generators at all facilities and pump stations.
- Topped off chemical tanks, fuel tanks, and water tanks.
- Suspended manual and automatic flushing in the distribution system.
- Installed collection system bypasses at sites with historic SSO capacity-related issues.
- Replicated all applications and Authority data to off-site disaster recovery facility.
- Updated contact information for emergency contractors, CFPUA facility information, and resource inventories.

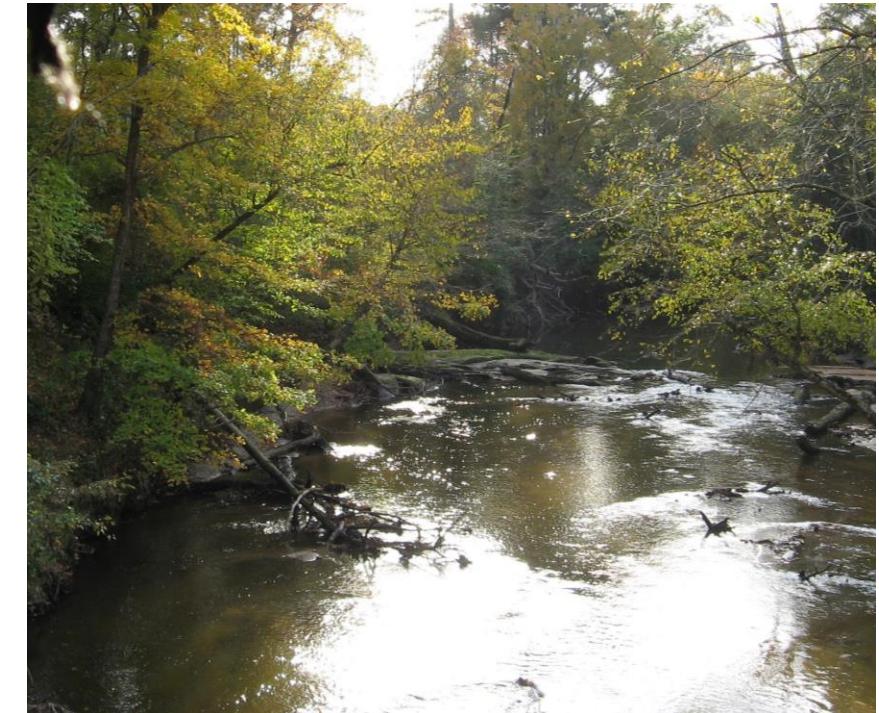
Before

During

After

Preparing to Maintain Water Quality

- Rescheduled over 200 samples and tests to meet monthly compliance.
- Relocated equipment for testing to plant sites in case of road closures.
- Trained Operations staff to conduct testing in the event lab staff could not be on site.



Before

During

After

Internal and External Communications Preparation

- Informed customers via NotifyMe! of possible impacts from storm and the actions CFPUA was taking in preparation.
- Set up EOC communications.
- Utilized three phone service providers to ensure communications with customers.
- Developed system to maintain communications capability with resource agencies.



Before

During

After

Business Continuity Planning



- Distributed disaster recovery timesheets and equipment logs to staff to track hours and equipment usage used for FEMA eligible activities.
- Strategically provided staff opportunities to secure their homes so they were available during and after the event.
- Meter Services created a disaster response team dedicated to assisting customers with emergencies during and after the storm.

Before

During

After

Work at the Emergency Operations Centers

- Up to 12 employees staffed the CFPUA EOC throughout the storm.
- Five members of the Engineering Department staffed Emergency Support Function 3 at the County's EOC in 12 hour shifts throughout the storm.
- Engineering staff created a road closures map on GIS for use by City, County, and CFPUA responders. The application received 51,000 views on its first day in operation.
- IT staff deployed to address cooling failure at primary data center. Peak temperatures reached 154 degrees inside the machines.



Before

During

After

Power Supply During the Storm

- Fuel tanks were filled up before the hurricane arrived.
- Generators started on Thursday before strong tropical storm winds arrived (11:00 am Thursday).
- All facilities lost commercial power from Duke Energy during the hurricane.
- Winds in excess of 50 mph remained on Friday.
- By Saturday morning, most generators had run for over 48 hours.
- Maintained generators running into Sunday when refueling commenced.

Facility	Fuel Storage	Approximate Run-time
Sweeney WTP	20,000 gallons	6 days
Richardson WTP	10,600 gallons	5 days
Well sites	Varies	3 days
Northside WWTP	16,000 gallons	5 days
Southside WWTP	1,000 gallons	3 days
Pump Stations (148)	Varies	3 days

Before

During

After

Power Supply During the Storm (Cont.)

- Saturday AM to Sunday AM
 - Contacted CFPUA's emergency fuel supplier – unable to deliver.
 - Contacted fuel suppliers throughout NHC and surrounding areas – unable to deliver.
 - Requested assistance from NHC EOC and State EOC for fuel per established protocol.
 - Fuel supply from Raleigh secured – unable to deliver due to road closures.
 - Coordinated with Duke Power to restore power to treatment plants – started on repairs but unable to provide timeframe.
- Sunday
 - Generators continued to run. Water plants approaching 48 hours of fuel remaining.
 - Issued press release regarding fuel status.
 - NHC Airport Authority identified potential source of fuel – secured fuel delivery for treatment plants.
 - Secured additional sources of fuel delivery for treatment plants.
 - Mounted small 100 gallon fuel tanks on CFPUA trucks to deliver fuel to remote pump stations.
 - Contractor provided a 1,000 gallon fuel truck and driver to deliver fuel – obtained fuel at emergency fuel supplier and delivered where needed.
 - LCFWASA fuel supply approaching 30 hours—fuel delivery scheduled.

Before

During

After

Power Supply During the Storm (Cont.)



- Monday through Wednesday
 - Secured fuel at Colonial Fuel terminals and others.
 - Received fuel from NHC EOC when it was available.
 - Continued fuel deliveries with contractor's fuel truck.
 - Continued fuel deliveries with fuel tanks on pickup trucks.
- Commercial power from Duke Energy was restored to treatment plants by Tuesday.
- Throughout event, maintained in contact with Duke Energy, Brunswick County, and LCFWASA.

Before

During

After

Responding to Damage During the Storm

- Southside Wastewater Treatment Plant lost generator power and bypassed partially treated wastewater for several hours.
- Sweeney WTP ozone roof membrane was damaged and torn causing leaks.
 - Protected key equipment.
 - Arranged temporary repair with roof contractor.



Before

During

After

Maintaining Water Quality During the Storm

- All drinking water treatment plants met state and federal standards during and after the storm.
- Staff continued to take routine daily samples, in addition to daily PFAS samples, at the water treatment plants.
- Staff worked with Brunswick County to monitor raw water quality.
- Maintained pressure and fire flow throughout the system.



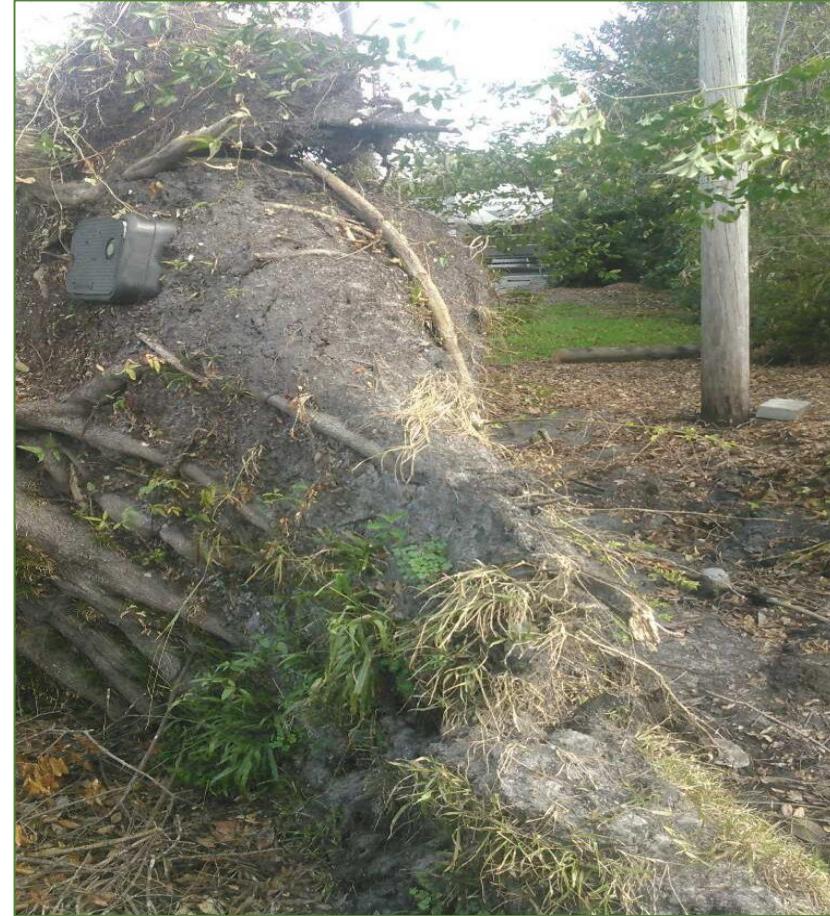
Before

During

After

Business Continuity Action During the Storm

- Meter Services responded to:
 - 180 emergency calls
 - Repaired 14 private services
 - Provided damage assessment on 288 large meters
- Finance staff made distributions of petty cash to supervisors to provide food and resources to employees in the field.



Before

During

After

Impacts on Water Quality

- 22 SSOs and a release of 5.25 million gallons of partially treated wastewater from Southside WWTP.
- Took additional samples for:
 - Chemicals associated with coal ash
 - PFAS
 - Total Organic Carbon
- Collected remaining 110 compliance samples for the month of September.



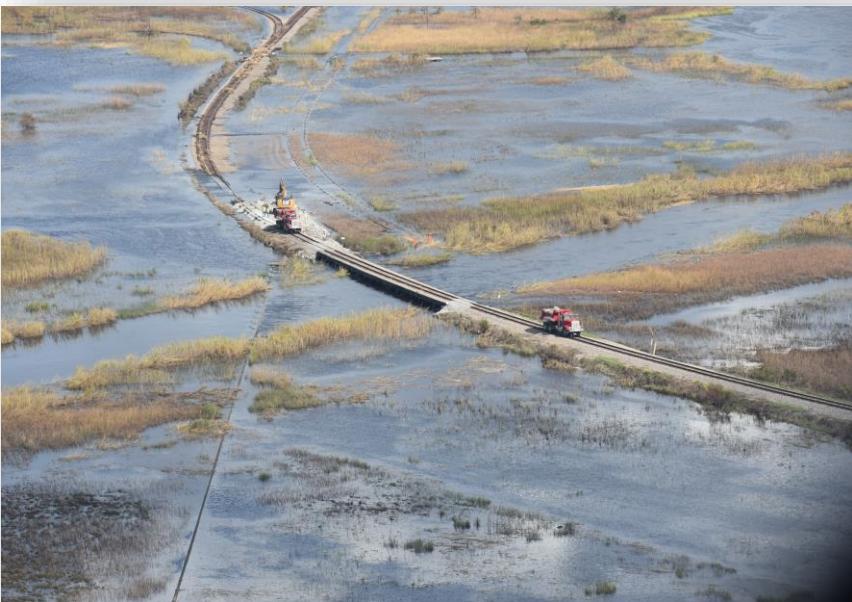
Before

During

After

Damage Assessments

- The Damage Assessment process began on Sunday. All pump stations, well sites, and treatment plants have been assessed.
- Staff conducted an aerial assessment by helicopter of the raw water system.
- With the exception of the Sweeney roof, the system did not sustain major damage.
- Sink holes still developing requiring water and sewer main repairs.



Before

During

After

Customer Service & Communications

Monday, September 17

- Four staff worked for five hours to clear all emails and voicemails that had been received since September 12
 - Approximately 100 collective voice and email responses were provided

Tuesday, September 18

- Because of the number of inquiries, the call center opened its phone lines at noon and began accepting customer calls
 - Concerns ranged from water quality, leaks, bill payments, etc.
- From noon until 5 pm, the call center handled approximately 150 calls

Wednesday, September 19

- Phone lines were open all day and staff handled nearly 400 calls

Thursday, September 20

- Statement was released to update customers on status of water quality
- We opened at noon for walk-in customers
- Nearly 400 calls were handled in addition to the walk-in customers



Before

During

After

CFPUA Emergency Work at U.S. 421 Protects Raw Water Supply Main

- Extreme flooding eroded road shoulder, exposing the Lower Cape Fear Water and Sewer Authority raw water supply main.
- Crews mobilized late Friday night to stabilize the water line.
- At 3:30 am the crews successfully stabilized the water main, preventing rupture and securing water supply to the public.



Opportunities for Improvement

- Staff to review actions taken before, during and after the hurricane.
- Full report to be published with lessons learned.

Questions?

From: [Jim Flechtner](#)
To: Charlie Rivenbank; Cindee Wolf; Deans Hackney; Jennifer Adams; Kevin O"Grady; Larry Sneeden; Michael Brown; Pat Kusek; Skip Watkins; Wesley Corder; William Norris; Mike Brown (mike@capecfearcommercial.com)
Subject: Hurricane Florence: September 20 Update
Date: Thursday, September 20, 2018 12:44:49 PM

Board,

With sufficient staff here and the parking lot generally clean, we opened the Government Center Drive office at 12 pm today. This is good news as we continue to help customers affected by the storm. We will reopen the downtown office when the City opens its building.

Below is the latest:

- We have reported 20 SSOs to NCDEQ. For various reasons, we can't calculate the volume for each. For instance, some stations lost power, but with communications out we can't determine for how long. NCDEQ agrees the proper response is to report the location of each SSO without estimating volumes.
- We had an isolated report of threaded cleanout caps being removed so stormwater could drain to the collection system. One location in particular is being reviewed by staff.
- The Richardson plant is back on generator power. Since commercial power in the area has not been stable, we plan to use the generator until things improve.
- We have 45 pump stations on generator power, but that number is declining as Duke restores its system. Most are smaller stations.
- Routine sampling for compliance is underway. We are doing minimal flushing so we don't make saturated areas worse.
- The County landfill has an on-site treatment plant for leachate and stormwater. It does an excellent job of managing water quality on-site. During extreme conditions such as what we are experiencing, CFPUA takes extra water through our wastewater system. We expect this will be a very limited duration.
- Many staging areas around town have porta-johns that need to be pumped. We are accepting that septic at Northside as needed.
- We were open yesterday for customers who needed assistance by phone. We handled about 400 calls yesterday.
- We are releasing a message that customers on autodraft bill pay need to contact us if they want to suspend that service.
- The City has provided us information we can provide customers about solid waste and vegetative collection.
- We are authorizing additional safety boot purchases for field staff, who normally are provided one pair each year. Some field crews haven't opportunity to dry their shoes between uses.
- Engineering will complete damage assessments today and will compile the results. Overall, we have minimal damage identified.
- River elevations at Lock & Dam #1 are expected to crest 1 – 2 feet above record. We do not expect the nearby Kings Bluff pump station will be impacted.
- To meet deadlines, we will submit a grant application to NCDEQ for the Sweeney upgrade. We planned to bring the needed resolution to the Board in September, but will now bring it in

October. The resolution, if approved, would then be forwarded to DEQ.

Please let me know if you have questions or concerns.

Jim

PART I:

This form shall be submitted to the appropriate DWQ Regional Office within five days of the first knowledge of the sanitary sewer overflow (SSO).

Permit Number: WQCS00012 (WQCS# if active, otherwise use WQCSD#)

Facility: CFPUA Collection System Incident #: 201802053

Owner: Cape Fear Public Utility Authority

City: _____ County: New Hanover Region: Wilmington

Source of SSO (check applicable): Sanitary Sewer Pump Station / Lift Station

SPECIFIC location of the SSO (be consistent in description from past reports or documentation - i.e. Pump Station 6,

Manhole at Westall & Bragg Street, etc): Manhole at 1002 Cypress Dr - pump station (P/S) 2

Manhole #: _____

Latitude (Decimal Degrees): _____ Longitude (Decimal Degrees): _____

Incident Started Dt:	<u>09/17/2018</u>	Time:	<u>5:00 am</u>	Incident End Dt:	<u>09/17/2018</u>	Time:	<u>05:05 am</u>
	(mm-dd-yyyy)		(hh:mm AM/PM)		(mm-dd-yyyy)		(hh:mm AM/PM)

Estimated Volume of the SSO: 100 gallons Estimated Duration (Round to nearest hour): 0:5 hours

Describe how the volume was determined: _____

Weather conditions during the SSO event: Hurricane Florence

Did SSO reach surface waters? Yes No Unknown Volume reaching surface waters (gals): _____

Surface water name: _____

Did the SSO result in a fish kill? Yes No Unknown If Yes, what is the estimated number of fish killed? _____

SPECIFIC cause(s) of the SSO: _____

Severe Natural Conditi

24 hour verbal notification (name of person contacted): Morella Sanchez-King

DWR Emergency Mgmt Date (mm-dd-yyyy): 09/17/2018 Time (hh:mm AM/PM): 09:00:00 am

If an SSO is ongoing, please notify the appropriate Regional Office on a daily basis until SSO can be stopped.

Per G.S. 143-215.1C(b), the responsible party of a discharge of 1,000 or more of untreated wastewater to surface waters shall issue a press release within 24-hours of first knowledge to all print and electronic news media providing general coverage in the county where the discharge occurred. When 15,000 gallons or more of untreated wastewater enters surface waters, a public notice shall be published within 10 days and proof of publication shall be provided to the Division within 30 days. Refer to the reference statute for further detail.

The Director, Division of Water Resources, may take enforcement action for SSOs that are required to be reported to Division unless it is demonstrated that:

- 1) the discharge was cause by sever natural conditions and there were no feasible alternative to the discharge; or
- 2) the discharge was exceptional, unintentional, temporary and caused by factors beyond the reasonable control of the Permittee and/or owner, and the discharge could not have been prevented by the exercise of reasonable control.

Part II must be completed to provide a justification claim for either of the above situations. This information will be the basis

WHETHER OR NOT PART III IS COMPLETED, A SIGNATURE IS REQUIRED AT THE END OF THIS FORM

PART II:

ANSWER THE FOLLOWING QUESTIONS FOR EACH RELATED CAUSE CHECKED IN PART I OF THIS FORM AND INCLUDE THE APPROPRIATE DOCUMENTATION AS REQUIRED OR DESIRED

COMPLETE ONLY THOSE SECTIONS PERTAINING TO THE CAUSE OF THE SSO AS CHECKED IN PART I
(In the check boxes below, NA = Not Applicable and NE = Not Evaluated)

A HARDCOPY OF THIS FORM SHOULD BE SUBMITTED TO THE APPROPRIATE DWR REGIONAL OFFICE UNLESS IS

Severe Natural Condition

Describe the "severe natural condition" in detail?

Hurricane Florence

How much advance warning did you have and what actions were taken in preparation for the event?

3 days advance started preparations on 9/12/18 by placing portable generators at pump stations without stationary units.

Comments:

System Visitation

ORC

Yes

Backup

Yes

Name:

Christopher Benegasi

Cert#

1005021

Date visited:

Time visited:

How was the SSO remediated (i.e. Stopped and cleaned up)?

Flooding from Hurricane Florence subsided.

As a representative for the responsible party, I certify that the information contained in this report is true and accurate to the best of my knowledge.

Person submitting claim: Robert P Daughtry Date: _____

Signature: _____ Title: _____

Telephone Number: _____

Any addition information desired to be submitted should be sent to the appropriate Division Regional Office within five days of first knowledge of the SSO with reference to the incident number (the incident number is only generated when electronic entry of this form is completed, if used).

PART I:

This form shall be submitted to the appropriate DWQ Regional Office within five days of the first knowledge of the sanitary sewer overflow (SSO).

Permit Number: WQCS00012 (WQCS# if active, otherwise use WQCSD#)

Facility: CFPUA Collection System Incident #: 201802544

Owner: Cape Fear Public Utility Authority

City: _____ County: New Hanover Region: Wilmington

Source of SSO (check applicable): Sanitary Sewer Pump Station / Lift Station

SPECIFIC location of the SSO (be consistent in description from past reports or documentation - i.e. Pump Station 6,

Manhole at Westall & Bragg Street, etc): Clean out at Halcyon Lane, Avenel SD, Wilmington

Manhole #: _____

Latitude (Decimal Degrees): _____ Longitude (Decimal Degrees): _____

Incident Started Dt:	<u>09/19/2018</u>	Time:	<u>6:30 pm</u>	Incident End Dt:	<u>09/19/2018</u>	Time:	<u>07:00 pm</u>
	(mm-dd-yyyy)		(hh:mm AM/PM)		(mm-dd-yyyy)		(hh:mm AM/PM)

Estimated Volume of the SSO: 100 gallons Estimated Duration (Round to nearest hour): 0:30 hours

Describe how the volume was determined: _____

Weather conditions during the SSO event: Hurricane Florence

Did SSO reach surface waters? Yes No Unknown Volume reaching surface waters (gals): _____

Surface water name: _____

Did the SSO result in a fish kill? Yes No Unknown If Yes, what is the estimated number of fish killed? _____

SPECIFIC cause(s) of the SSO: _____

Severe Natural Conditi

24 hour verbal notification (name of person contacted): Morella Sanchez-King

DWR Emergency Mgmt Date (mm-dd-yyyy): 09/20/2018 Time (hh:mm AM/PM): 05:18:00 pm

If an SSO is ongoing, please notify the appropriate Regional Office on a daily basis until SSO can be stopped.

Per G.S. 143-215.1C(b), the responsible party of a discharge of 1,000 or more of untreated wastewater to surface waters shall issue a press release within 24-hours of first knowledge to all print and electronic news media providing general coverage in the county where the discharge occurred. When 15,000 gallons or more of untreated wastewater enters surface waters, a public notice shall be published within 10 days and proof of publication shall be provided to the Division within 30 days. Refer to the reference statute for further detail.

The Director, Division of Water Resources, may take enforcement action for SSOs that are required to be reported to Division unless it is demonstrated that:

- 1) the discharge was cause by sever natural conditions and there were no feasible alternative to the discharge; or
- 2) the discharge was exceptional, unintentional, temporary and caused by factors beyond the reasonable control of the Permittee and/or owner, and the discharge could not have been prevented by the exercise of reasonable control.

Part II must be completed to provide a justification claim for either of the above situations. This information will be the basis

WHETHER OR NOT PART III IS COMPLETED, A SIGNATURE IS REQUIRED AT THE END OF THIS FORM

PART II:

ANSWER THE FOLLOWING QUESTIONS FOR EACH RELATED CAUSE CHECKED IN PART I OF THIS FORM AND INCLUDE THE APPROPRIATE DOCUMENTATION AS REQUIRED OR DESIRED

COMPLETE ONLY THOSE SECTIONS PERTAINING TO THE CAUSE OF THE SSO AS CHECKED IN PART I
(In the check boxes below, NA = Not Applicable and NE = Not Evaluated)

A HARDCOPY OF THIS FORM SHOULD BE SUBMITTED TO THE APPROPRIATE DWR REGIONAL OFFICE UNLESS IS

Severe Natural Condition

Describe the "severe natural condition" in detail?

Hurricane Florence

How much advance warning did you have and what actions were taken in preparation for the event?

3 days advance started preparations 9/12/18 by placing portable generators at pump stations without stationary units.

Comments:

System Visitation

ORC

Yes

Backup

Yes

Name:

Christopher Benegasi

Cert#

1005021

Date visited:

Time visited:

How was the SSO remediated (i.e. Stopped and cleaned up)?

Flooding from Hurricane Florence subsided.

As a representative for the responsible party, I certify that the information contained in this report is true and accurate to the best of my knowledge.

Person submitting claim: Robert P Daughtry Date: _____

Signature: _____ Title: _____

Telephone Number: _____

Any addition information desired to be submitted should be sent to the appropriate Division Regional Office within five days of first knowledge of the SSO with reference to the incident number (the incident number is only generated when electronic entry of this form is completed, if used).

From: [Robert Daughtry](#)
To: [Ben Kearns](#); [Beth Eckert](#); [Carel Vandermeyden](#); [Christopher Benegasi](#); [Cord Ellison](#); [Craig Wilson](#); [David Mays](#); [David Sickle](#); [Eric Hatcher](#); [Frank Stvers](#); [Gary McSmith](#); [Jacqueline Valade](#); [Jeff Cermak](#); [Jim Tayson](#); [John Jernigan](#); [John Malone](#); [Jordan Evans](#); [Justin Maurice](#); [Katherine Willis](#); [Kevin Boyett](#); [Kevin Knapp](#); [Kristi Trick](#); [Lawrence Caddell](#); [Linda Miles](#); [Matthew Ayres](#); [Matthew Tribett](#); [Milton Vann](#); [Rebecca Cramer](#); [Robert Daughtry](#); [Robert Mazzeo](#); [Steve Mongeau](#); [Steven Stvers](#); [Todd Overturff](#); [Viktoriya Sickle](#)
Subject: PS #8 Hoggard

We have lost all function of pump station #8 due to flooding. All internal electrical controls are submerged. We have reached out to Godwin Pumps to help construct a bypass pumping operation. The plan is to pump out of the wet well and directly into the new force main constructed by TALCO. I spoke with Bill Bissett Superintendent and he confirmed it is connected all the way to the valve vault of the new station. Godwin is not sure if they have a pump available but Shawn is checking what will be needed to get this work done.

Robert Daughtry, CO, CS 4
Collection System Superintendent
633 Groundwater Way
Wilmington NC 28411
Ph. (910)332-6637

From: [Beth Eckert](#)
To: [Dean Hunkele](#); [Morella King](#)
Cc: [Robert Daughtry](#); [Christopher Benegasi](#); [Frank Styers](#); [Elizabeth Severt](#)
Subject: RE: [External] RE: CFPUA WW status and SSOs
Date: Tuesday, September 25, 2018 2:59:00 PM

Dean

I think we can accommodate this out at the lab conference room. How many folks are you talking about and what would be your needs logically?

Beth

From: Hunkele, Dean <dean.hunkele@ncdenr.gov>
Sent: Tuesday, September 25, 2018 2:27 PM
To: Beth Eckert <beth.eckert@cfpua.org>; Morella King <morella.sanchez-king@ncdenr.gov>
Cc: Robert Daughtry <robert.daughtry@cfpua.org>; Christopher Benegasi <christopher.benegasi@cfpua.org>; Frank Styers <frank.styers@cfpua.org>; Elizabeth Severt <elizabeth.severt@cfpua.org>
Subject: RE: [External] RE: CFPUA WW status and SSOs

Hey Beth,

Typically reports are individual locations unless along same line and for same reason like Burnt Mill we did before.

Some have been entered and others haven't been – many that were called into Raleigh have been if location & permit number were given, but it will easily be a week before we get them in the system. I have seen some double entries as well. They are trying to use 2 incident databases which isn't helping – the Dept came out with their own.

Any chance we might be able to borrow a conference room at headquarters or the lab since we don't have an office?

Dean Hunkele

Environmental Specialist II
Water Quality Regional Operations Section
Division of Water Resources
Department of Environmental Quality

910.796.7215 Reception Desk

910.796.7380 Direct

910.350.2004 Fax

Dean.Hunkele@ncdenr.gov

Wilmington Regional Office

127 Cardinal Drive Ext
Wilmington, NC 28405
<http://deq.nc.gov/contact/regional-offices/wilmington>

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The goal of the Fast Track sewer permit program is to issue a permit in no more than 30 **business** days from receipt of a complete application and if no additional information has to be requested upon full review. Please use the **Department's Permit Application Tracker** to determine the official application receipt date to allow you to estimate a date for issuance and find the reviewer's name. Once issued, the record stays on the site for 30 days.

For previously issued sewer permit info or to check on sewer certification receipt status, please use the **Division's Sewer Extension Permit Tracker**. Using the Issue Date on top of the Engineer Certification Form is best way to ensure getting what you want especially for multi-version permits; using today's date only gives info on the latest permit version. [Confirmation using this method will replace letters and emails; it is recommended that confirmation be printed and/or saved.](#)

Links to both trackers can be found on the sewer permitting site here: <https://deq.nc.gov/about/divisions/water-resources/water-resources-permits/percs/collection-systems-permits>

[Subscribe to Collection System Updates](#) listserve to receive automatic alerts for changes to applications, policies, regulations, etc.

From: Beth Eckert [<mailto:Beth.Eckert@cfpua.org>]
Sent: Tuesday, September 25, 2018 1:21 PM
To: King, Morella s <morella.sanchez-king@ncdenr.gov>; DEQ.DMF.SpillNotification <DMF.SpillNotification@ncdenr.gov>; Hunkele, Dean <dean.hunkele@ncdenr.gov>
Cc: Robert Daughtry <Robert.Daughtry@cfpua.org>; Christopher Benegasi <Christopher.Benegasi@cfpua.org>; Frank Styers <Frank.Styers@cfpua.org>; Elizabeth Severt <Elizabeth.Severt@cfpua.org>
Subject: [External] RE: CFPUA WW status and SSOs

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Morella/Dean

In reviewing the information in the BIMS system the SSOs we submitted for the 16th below have not been entered. I am just following up to ensure you have them. As you can see below the notification was sent at 639 pm am on the 16th.

We still would like to be able to lump together these events into one event due to Hurricane Florence if at all possible.

Thanks,
Beth Eckert

From: Beth Eckert
Sent: Sunday, September 16, 2018 6:39 PM
To: Morella King <morella.sanchez-king@ncdenr.gov>; DMF ncdenr <DMF.SpillNotification@ncdenr.gov>; Dean Hunkele (Dean.hunkele@ncdenr.gov)

<Dean.hunkele@ncdenr.gov>

Cc: Robert Daughtry <robert.daughtry@cfpua.org>; Christopher Benegasi <christopher.benegasi@cfpua.org>; Frank Styers <frank.styers@cfpua.org>; Beth Eckert <beth.eckert@cfpua.org>; Elizabeth Severt <elizabeth.severt@cfpua.org>

Subject: CFPUA WW status and SSOs

Morella

While evaluating the system today we identified a few more issues in the collection system. These are listed below. The information we have on these events at this time are listed below along with the status when we left them. We do not have any estimates on volumes. There are still several crews out in the field tonight and once they get back in we will compile any issues they may have as well and forward later. There may be other issues out there that we are not aware of. Just like today, we anticipate having limited access to stations and the system today due to downed trees, power lines and flooding but will update you when we have more information.

Also, Southside WWTP switched back to commercial power late yesterday and is still on commercial power at this time. The Northside WWTP is still on generator and we are working with the EOC and other channels to get a fuel delivery for the plants as well as the generators at the pump stations. We got some fuel today and additional deliveries are planned for tomorrow.

Thanks,
Beth Eckert
Environmental Management Director
910-524-4133

From: Christopher Benegasi
Sent: Sunday, September 16, 2018 5:27 PM
To: Beth Eckert <beth.eckert@cfpua.org>
Cc: Robert Daughtry <robert.daughtry@cfpua.org>
Subject: SSO's

9/16/18

8:00am M/H at Windchime Dr – P/S 36 Generator tripped out – Restarted generator stopped at 9:30am

11:00am M/H at 430 Sharon Dr – P/S 39 Inundated due to flooding

2:00pm 15th & Ann and 15th & Nun – Gravity mains Inundated due to flooding

Chris Benegasi
Collections System Supervisor
Christopher.benegasi@cfpua.org
O: 910-332-6496
M: 910-367-8009

From: [Beth Eckert](#)
To: [Morella King](#)
Cc: [Munger, Bridget](#); [Milton Vann](#)
Subject: Re: [External] RE: Florence- State of Facilities
Date: Friday, September 14, 2018 9:31:38 PM

Thanks Morella. You too.

Beth Eckert

On Sep 14, 2018, at 9:30 PM, King, Morella s <morella.sanchez-king@ncdenr.gov> wrote:

Thank you Beth. I will let you know if more questions arise. You might be exhausted. Hope you can rest some.

Morella

Sent from my iPhone

On Sep 14, 2018, at 9:19 PM, Beth Eckert <Beth.Eckert@cfpua.org> wrote:

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Morella

Sorry I was accidentally left off of an email from earlier. Gregory Poole was able to fix the interim screw pump generator at 1620 and the bypass status ceased at that time. The ORC is determining volumes now and will let me know when he has the volume and I will update you when I get it.

The main generator is still down and a voltage regulator is being driven to the site from 3hours away and will be installed when it gets there

Hope this helps.

Thanks,
Beth Eckert

On Sep 14, 2018, at 8:56 PM, King, Morella s <morella.sanchez-king@ncdenr.gov> wrote:

Hi Beth,

Please read the messages below, when you get a chance,
could you please provide a response?

Thanks,

Morella

==

Morella Sanchez King

Wilmington Regional Office: 127 Cardinal Drive Extension; Wilmington, NC

28405

morella.sanchez-king@ncdenr.gov; (P)910 796 7218 - (F) 910 350 2004

<image003.jpg>

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=====

From: Munger, Bridget

Sent: Friday, September 14, 2018 5:58 PM

To: King, Morella s <morella.sanchez-king@ncdenr.gov>

Subject: FW: [External] CFPUA spill - Southside Wastewater Treatment Plant

If you have any additional information on the CFPUA generator failure and ongoing spill, please send them my way. And stay safe!

Thank you,

Bridget

From: Johanna Ferebee <johanna@localvoicemedia.com>

Sent: Friday, September 14, 2018 5:38 PM

To: Munger, Bridget <bridget.munger@ncdenr.gov>

Subject: [External] CFPUA spill - Southside Wastewater Treatment Plant

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Hi Ms. Munger,

Hope you are holding up alright during this storm.

We received a release today from CFPUA about a wastewater spill - no mention of how many gallons though. Here are my questions for you all:

<!--[if !supportLists]-->•<!--[endif]-->When did

CFPUA alert you all of the spill?

<!--[if !supportLists]-->•<!--[endif]-->Approximately how many gallons of partially untreated wastewater has been

released so far?
<!--[if !supportLists]-->• <!--[endif]-->What's the status of
the repairs?
<!--[if !supportLists]-->• <!--[endif]-->What exactly
caused the failure of the two generators? (Obviously, I'm
assuming it's storm-related. A tree? Flooding water?)
<!--[if !supportLists]-->• <!--[endif]-->What's the
expected direction of wastewater flow from the plant's
River Road location?
In addition, any tips or practical advice for residents of our area to
take in wading through floodwaters, now with knowledge of
wastewater present, would be greatly appreciated.

Thanks so much in advance for your help,

Johanna
Port City Daily
910-264-5678

From: Beth Eckert [<mailto:Beth.Eckert@cfpua.org>]
Sent: Friday, September 14, 2018 3:12 PM
To: King, Morella s <morella.sanchez-king@ncdenr.gov>
Cc: Milton Vann <Milton.Vann@cfpua.org>; Robert Daughtry
<Robert.Daughtry@cfpua.org>; Hunkel, Dean
<dean.hunkel@ncdenr.gov>; Jim Flechtner
<jim.flechtner@cfpua.org>; Frank Styers
<Frank.Styers@cfpua.org>; Beth Eckert
<Beth.Eckert@cfpua.org>; Adam Poore
<Adam.Poore@cfpua.org>
Subject: [External] RE: Florence- State of Facilities

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[Spam.](#)

Morella,

We are safe and out starting the recovery and assessment process now. We will be doing so as long as it is safe for our staff and plan to have everyone back in just prior to dark. Out of the 148 pump stations there were either stationary or portable generators at approximately 120. At this time we have not identified SSOs out in the system, but as we do we will track and report to you at NCDEQ as required.

Northside WWTP is operating on generator at high flows but treatment processes are all operational.

Southside WWTP went to generator at 1700 on the 13th and experienced a failure of the generators at 0630 on the 14th. Attempts internally to restart the generators were not successful and the Southside WWTP began experiencing a bypass of the system at approximately 0640 on the 14th. At this time the bypass is an ongoing event. Gregory Poole stationed a local representative and is currently in route to the plant to address the failure and restart the generator. Once the generator starts we will evaluate and calculate the impact and volumes and report this information accordingly. We have notified the NCDEQ Emergency hotline and issued a press release regarding the bypass.

We will update you again tomorrow of the status of all processes. If you would like an update any sooner please let me know.

Thank You
Bethe Eckert
910-524-4133

Sent from [Mail](#) for Windows 10

From: Milton Vann
Sent: Friday, September 14, 2018 1:11:11 PM
To: Beth Eckert
Subject: FW: Florence- State of Facilities

FYI

From: King, Morella s <morella.sanchez-king@ncdenr.gov>

Sent: Friday, September 14, 2018 12:50 PM

To: Milton Vann <milton.vann@cfpua.org>; Gary McSmith <gary.mcsmith@cfpua.org>

Subject: Florence- State of Facilities

Hello Mr. Vann and Gary,

I hope you are your team are doing well. The Wilmington regional office closed on Wednesday at noon. I had to evacuate and am working from Raleigh- I have to provide daily updates to upper management. Could you please provide update on your facilities. Please, include permit numbers.

Gary: If you have updates (related to Florence) to share on the ASR system (or any other), please do so.

Thank you, and please stay safe,

Morella

Thanks,

Morella

==

Morella Sanchez King, PhD, PE
Interim Regional Supervisor, Water Quality Regional Operations Section

Wilmington Regional Office: 127 Cardinal Drive Extension; Wilmington, NC 28405

910-796-7218; morella.sanchez-king@ncdenr.gov

<image004.jpg>

<image005.png>

From: Morella King
To: Higgins, Karen
Cc: Beth Eckert; Dean Hunkle
Subject: RE: [External] RE: SSO's
Date: Tuesday, September 25, 2018 5:00:46 PM
Attachments: image003.png

Thank you Karen,

Morella

--

Morella Sanchez King
Wilmington Regional Office: 127 Cardinal Drive Extension; Wilmington, NC 28405
morella.sanchez-king@ncdenr.gov; (P)910 796 7218 - (F) 910 350 2004



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From: Higgins, Karen
Sent: Tuesday, September 25, 2018 4:50 PM
To: King, Morella <morella.sanchez-king@ncdenr.gov>
Cc: Beth.Eckert@cfpua.org
Subject: RE: [External] RE: SSO's

Morella-

These were not entered, they are now. Please see table below for everything under this permit going back to 9-15-18:

Date	Incident #	Permit #	Region	County	City	Liable Owner	Facility	Location
2018-09-20 08:00:00	201802595	WQCS00012	Wilmington	New Hanover	Wilmington	Cape Fear Public Utility Authority	CFPUA Collection System	Manhole at 2nd & Dawson
2018-09-19 18:30:00	201802544	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	Clean out at Halcyon Lane, Avenel SD, Wilmington
2018-09-18 13:30:00	201802201	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	Manhole at 2000 Block of Princess Place Drive
2018-09-18 11:30:00	201802200	WQCS00012	Wilmington	New Hanover	Wilmington	Cape Fear Public Utility Authority	CFPUA Collection System	1400 block of Market St.
2018-09-18 07:10:00	201802204	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	308 Colquitt Drive (P/S 129)
2018-09-17 14:30:00	201802066	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	Manhole at Prestwick Lane
2018-09-17 13:00:00	201802065	WQCS00012	Wilmington	New Hanover	Wilmington	Cape Fear Public Utility Authority	CFPUA Collection System	Manhole at 110 Travelers Court - P/S 130
2018-09-17 12:45:00	201802062	WQCS00012	Wilmington	New Hanover	Wilmington	Cape Fear Public Utility Authority	CFPUA Collection System	Manhole at 300 block of Williamson Dr - P/S 17A
2018-09-17 12:00:00	201802061	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	Manhole at Caneel Cove Dr - P/S 30
2018-09-17 10:40:00	201802055	WQCS00012	Wilmington	New Hanover	Wilmington	Cape Fear Public Utility Authority	CFPUA Collection System	Windward Oaks manhole - P/S 103
2018-09-17 09:30:00	201802058	WQCS00012	Wilmington	New Hanover	Wilmington	Cape Fear Public Utility Authority	CFPUA Collection System	Manhole at 2200 Chestnut St.
2018-09-17 05:00:00	201802053	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	Manhole at 1002 Cypress Dr - pump station (P/S) 2
2018-09-16 20:15:00	201802047	WQCS00012	Wilmington	New Hanover	Wilmington	Cape Fear Public Utility Authority	CFPUA Collection System	Manhole at Woodlawn Ave. - pump station (P/S) 14
2018-09-15 15:30:00	201802841	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	C/O for 1018 43rd st D System inundation
2018-09-15 15:15:00	201802840	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	M/H outside of Landfall 2 P/S off of Pembroke Jones Dr D Generator ran out of fuel D Fueled generator and pumped down st
2018-09-15 13:50:00	201802839	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	M/H outside of Towels Rd P/S D Flooding
2018-09-15 12:30:00	201802838	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	M/H outside of Uppereach P/S D No Power D Brought generator and pumped down stopped at 1:00pm
2018-09-15 08:00:00	201802837	WQCS00012	Wilmington	New Hanover		Cape Fear Public Utility Authority	CFPUA Collection System	M/H outside of Athens Ln P/S - Flooding

Thanks-
Karen

--
Karen Higgins
401 & Buffer Permitting Branch Supervisor
Division of Water Resources
Department of Environmental Quality

(919) 707-3630 office ***please note my phone number has changed***
karen.higgins@ncdenr.gov
<https://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/401-wetlands-buffer-permits>

512 N. Salisbury Street (Archdale Building), Suite 942-E, Raleigh, NC 27604
1617 Mail Service Center, Raleigh, NC 27699-1617

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From: King, Morella s
Sent: Tuesday, September 25, 2018 1:39 PM
To: Higgins, Karen <karen.higgins@ncdenr.gov>
Subject: Fwd: [External] RE: SSO's

Hi Karen,

Could you please verify if this SSO was entered? If it was not... could you please enter it? Thanks! Morella

Sent from my iPhone

Begin forwarded message:

From: Beth Eckert <Beth.Eckert@cfpua.org>
Date: September 25, 2018 at 1:16:57 PM EDT
To: Morella King <morella.sanchez-king@ncdenr.gov>; DMF ncdenr <DMF.SpillNotification@ncdenr.gov>
Cc: Frank Styers <Frank.Styers@cfpua.org>; Robert Daughtry <Robert.Daughtry@cfpua.org>; Dean Hunkel <Dean.hunkel@ncdenr.gov>; Elizabeth Severt <Elizabeth.Severt@cfpua.org>; Christopher Benegasi <Christopher.Benegasi@cfpua.org>
Subject: [External] RE: SSO's

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Morella / Dean

In reviewing the information in the BIMS system the SSOs we submitted for the 15th below have not been entered. I am just following up to ensure you have them. As you can see below the notification was sent at 654 am on the 16th.

We still would like to be able to lump together these events into one event due to Hurricane Florence if at all possible.

Thanks,
Beth Eckert

From: Beth Eckert
Sent: Sunday, September 16, 2018 6:54 AM
To: Morella King <morella.sanchez-king@ncdenr.gov>; DMF ncdenr <DMF.SpillNotification@ncdenr.gov>
Cc: Frank Styers <frank.styers@cfpua.org>; Robert Daughtry <robert.daughtry@cfpua.org>; Dean Hunkel <Dean.hunkel@ncdenr.gov>
Subject: FW: SSO's

Morella

While evaluating the system, checking pump stations and their fuel situations yesterday we identified several areas around pump stations where either the manholes near the station or the station itself. The information we have is listed below along with the status when we left them. We do not have any estimates on volumes as they may be ongoing and based on the expansion over night of the flooding within Wilmington and our service area, there is probably other issues out there that we are not aware of. We will have limited access to stations and the system today due to the flooding but will update you when we have more information.

Also, Southside WWTP is back on commercial power. Northside is still on generator and we are working with the EOC to get a fuel delivery for the plants as well as the generators at the pump stations.

Thanks, Beth Eckert

Sent from [Mail](#) for Windows 10

From: Christopher Benegasi
Sent: Saturday, September 15, 2018 10:11:24 PM
To: Beth Eckert
Cc: Robert Daughtry
Subject: SSO's

9/15/18

8:00am M/H outside of Athens Ln P/S - Flooding

12:30pm M/H outside of Uppereach P/S – No Power – Brought generator and pumped down stopped at 1:00pm

1:50pm M/H outside of Towels Rd P/S – Flooding

3:15pm M/H outside of Landfall 2 P/S off of Pembroke Jones Dr – Generator ran out of fuel – Fueled generator and pumped down stopped at 5:15pm

3:30pm C/O for 1018 43rd st – System inundation

Chris Benegasi
Collections System Supervisor
Christopher.benegasi@cfpua.org
O: 910-332-6496
M: 910-367-8009

From: [Christopher Benegasi](#)
To: [Gary McSmith](#); [Florence](#)
Subject: RE: "sewer leak" SSO
Date: Monday, September 17, 2018 6:42:50 AM

We will check it out.

From: Gary McSmith
Sent: Monday, September 17, 2018 5:02 AM
To: Florence <Florence@cfpua.org>; Christopher Benegasi <Christopher.Benegasi@cfpua.org>
Subject: "sewer leak" SSO

[REDACTED] reports sewage leak between [REDACTED]
[REDACTED]. Leak is same line that broke 4 years ago. Toilet paper and sewage coming
up in her toilet and yard and creek.

From: [Beth Eckert](#)
To: [Robert Daughtry](#)
Subject: Re: Avenel SSO reported
Date: Wednesday, September 19, 2018 8:57:25 PM

Yeah Ryan

Beth Eckert

On Sep 19, 2018, at 8:42 PM, Robert Daughtry <Robert.Daughtry@cfpua.org> wrote:

Yes and they had nothing to do with removing it according to neighbors.

Robert Daughtry, CO, CS 4
Collection System Superintendent
633 Groundwater Way
Wilmington NC 28411
Ph. (910)332-6637

From: Beth Eckert
Sent: Wednesday, September 19, 2018 8:31 PM
To: Robert Daughtry <Robert.Daughtry@cfpua.org>
Subject: Re: Avenel SSO reported

U get to talk to anyone?

Beth Eckert

On Sep 19, 2018, at 8:28 PM, Robert Daughtry <Robert.Daughtry@cfpua.org> wrote:

We did find a clean out cap off. We don't know how it got off but it was a threaded plug that I screwed right back on.

Robert Daughtry, CO, CS 4
Collection System Superintendent
633 Groundwater Way
Wilmington NC 28411
Ph. (910)332-6637

From: Gary McSmith
Sent: Wednesday, September 19, 2018 6:45 PM
To: Frank Styers <Frank.Styers@cfpua.org>; Carel Vandermeyden <Carel.Vandermeyden@cfpua.org>; Beth Eckert <Beth.Eckert@cfpua.org>; Robert Daughtry <Robert.Daughtry@cfpua.org>
Subject: Re: Avenel SSO reported

Perfect. Thanks. I will put that on the record.

From: Robert Daughtry
Sent: Wednesday, September 19, 2018 6:38:54 PM
To: Gary McSmith; Frank Styers; Carel Vandermeyden; Beth Eckert
Subject: RE: Avenel SSO reported

The Lift station is not spilling. CFPUA does not own the storm water pumps, they are the property of the HOA. The CFPUA sewer pump station is operational and all manholes in the area are sealed. The power to the stormwater pump is supplied by our electrical service and generator. That is the extent of any CFPUA responsibility and storm water in that area is HOA and New Hanover County.

Robert Daughtry, CO, CS 4
Collection System Superintendent
633 Groundwater Way
Wilmington NC 28411
Ph. (910)332-6637

From: Gary McSmith
Sent: Wednesday, September 19, 2018 2:56 PM
To: Florence <Florence@cfpua.org>; Christopher Benegasi <Christopher.Benegasi@cfpua.org>
Subject: Avenel SSO reported

[Map](#)
[View](#)
[Edit](#)

Type: Avenel Neighborhood Flooded

CFPUA is aware of the residents concern and is taking appropriate action related to all CFPUA infrastructure. The flooding issue is related to topography.

[REDACTED], resident of Avenel subdivision called to report residents of the neighborhood are unable to enter or exit due to flooding at the entrance at Edgewater Club Road and Final Landing Lane. There is a sewer lift station that has spilled over in the Avenel subdivision at the end of Halcyon Lane. [REDACTED] evacuated to California, but neighbors remained in their homes. They are unable to return to Wilmington until they have access to their home. To her knowledge, this is not an emergency situation. She was informed that

someone contacted CFPUA. She asked for assistance with pumping the water off the roadways.

Record #:8073 Name: Williams- Position: Jackie JIC EPIC Operator Label:
Rowland Date: 09/19/2018 Phone: 1762 Attachments:
14:29:35

From: [Beth Eckert](#)
To: [Morella King](#); [DMF ncdenr](#); [Dean Hunkele](#)
Cc: [Milton Vann](#); [Robert Daughtry](#); [Christopher Benegasi](#); [Frank Styers](#); [Eric Hatcher](#); [Peg Hall Williams](#)
Subject: RE: CFPUA SSO Update
Date: Thursday, September 20, 2018 5:17:56 PM

Morella,

Below is a list of identified SSOs that were identified since the last update along with their status. I included the SSO from the 1400 Block of Market Street again on this one since we were able to calculate a volume for this event. Crews are out continuing to refuel generators and move generators from places where power has been restored to places where power is still out. At the time of this email 34 pump stations out of 148 remain on generator power. As we continue to maneuver through the service area, if we identify issues we will update you as soon as we can or once we have additional information.

There have been some extreme weather events where the SSOs have been grouped together where appropriate to do so as one incident number. Is it possible to do that for this event or at least by day in order to stream line the 5-day reports and still provide you all of the information necessary for your tracking and record keeping?

Collection system is WQCS00012

9/18/18

11:30am 1400 Block of Market St – Storm drain washed road out causing sewer main to collapse. Crews are on site making repair. Spill Volumes was estimated at 10,500 gallons.

9/19/18

6:30pm 1419 Halcyon Ln – Pump station was high due to flooding in area. Appears that clean out cap had been removed causing c/o to run over. Screwed cap back on c/o stopping the spill at

7:00pm

9/20/18

8:00am M/H at 4th & Wooster and M/H at 2nd & Dawson – P/S 13 Had commercial power and lost a phase. Being the P/S was still reading power it did not transfer to generator. P/S crews arrived at 9:00am and transferred to generator power.

Northside is NC0023965 – On commercial power and is operating relatively normally with elevated flows.

Southside is NC0023973 – On commercial power and operating relatively normally with elevated flows.

If you have additional questions please let me know.

Thanks,
Beth Eckert
910-524-4133

From: [Robert Daughtry](#)
To: [Beth Eckert](#); [Frank Styers](#); [Milton Vann](#); [Jeff Cermak](#); [Steven Styers](#); [Tristin Rickabaugh](#); [Elizabeth Severt](#)
Cc: [Christopher Benegasi](#)
Subject: RE: DEQ Requires 24-hour calls & 5-day letters for all storm-related sewer overflows
Date: Thursday, September 13, 2018 7:01:11 PM

Thanks Beth.

Robert Daughtry, CO, CS 4
Collection System Superintendent
633 Groundwater Way
Wilmington NC 28411
Ph. (910)332-6637

From: Beth Eckert
Sent: Thursday, September 13, 2018 6:26 PM
To: Frank Styers <Frank.Styers@cfpua.org>; Robert Daughtry <Robert.Daughtry@cfpua.org>; Milton Vann <Milton.Vann@cfpua.org>; Jeff Cermak <Jeff.Cermak@cfpua.org>; Steven Styers <Steven.Styers@cfpua.org>; Tristin Rickabaugh <tristin.rickabaugh@cfpua.org>; Elizabeth Severt <Elizabeth.Severt@cfpua.org>
Subject: Fwd: DEQ Requires 24-hour calls & 5-day letters for all storm-related sewer overflows

Fyi

Beth Eckert

Begin forwarded message:

From: Paul Calamita <paul@aqualaw.com>
Date: September 13, 2018 at 5:36:00 PM EDT
To: Paul Calamita <paul@aqualaw.com>
Cc: Meghan Morel <mmorel@aqualaw.com>
Subject: DEQ Requires 24-hour calls & 5-day letters for all storm-related sewer overflows

To the NCWQA Members:

We hope everyone is okay and staying safe during Hurricane Florence.

We tried to get DEQ to agree to allow you to defer any SSO reporting (24-hour call; five-day letters) during the Hurricane, except for significant releases that particularly may threaten public health, but as you can see from the email below, DEQ has declined and, instead, wants all such reporting.

In response to DEQ's email below I have reminded DEQ that they can give us an advance exercise of their enforcement discretion (we won't take enforcement for deferred SSO reporting by utilities impacted) but they have not agreed to that either.

Accordingly, please do your best to make timely SSO reports to DEQ. If you can't make them on time, please do so as soon thereafter as possible.

Sorry to be the bearer of bad news.

All our best to all of you for a safe weekend and prompt return to service.

Best,

Paul

From: Gregson, Jim [<mailto:jim.gregson@ncdenr.gov>]

Sent: Thursday, September 13, 2018 5:04 PM

To: Paul Calamita <paul@aqualaw.com>

Cc: Culpepper, Linda <linda.culpepper@ncdenr.gov>

Subject: RE: [External] Deferring Sewer Overflow Notices from Utilities Impacted by Hurricane Florence

Paul,

We cannot waive the “as soon as possible but no later than 24 hour” reporting requirements for sewer overflows. While the Director may waive the 5-day reporting requirements in some circumstances, the 24 hour report to the Department is also requirement of state law if the volume of the discharge that reaches surface waters is 1,000 gallons or more. G.S. 143-215.1C also has requirements for press releases and public notices that are triggered by the determination that the discharge has reached surface waters. If a utility cannot access an area to check because of flooding but suspects an overflow is occurring, we should be notified of those situations as well. Due to the increased potential for the public to come in contact with floodwaters during and after a storm event, it is even more critical for the Department be made aware of overflows and bypasses. The Division and Department are constantly asked for this information by both governmental and private groups. We understand utilities are stretched thin during storm events and as such our regional offices can make allowances on a case by case basis for exceeding the 5-day reporting requirements but we still need to know as soon as possible (and no later than 24 hours) when overflows are occurring.

Jim Gregson
Interim Deputy Director
Division of Water Resources
Department of Environmental Quality

1611 Mail Service Center
Raleigh, NC 27699-1611
[919.707.9147](tel:919.707.9147) Direct

Jim.gregson@ncdenr.gov

From: David Mays
To: Robert Mazzeo; Robert Daughtry
Subject: RE: Hurricane Florence SSOs
Date: Monday, February 25, 2019 11:11:51 AM

I had sat down with Elizabeth for a bit last week going over the SSO's. I'd say to go with what she has. The information she's provided is a combination of my notes and what was found from digging through WO's in Maximo. The main thing was exact times- definitely couldn't find those. As most of the notes I have were on a 24-hour time frame when each crew went to check the stations- you can only go off of assumptions.

On the subject of time- especially for future major events, I think it would be a good practice for the pump station crews to enter their actual times for a specific task in their work orders; not just like 2 hours in the Actuals. If we had for example- a crew worked from 9:00am to 12:00pm making repairs to a station; that could be important information that's coming to light now that we might need. I'd say 9/10 Work Orders I see with the pump stations- only the exact hours are entered- not from what time they started and ended; Maximo will fill that time in when you enter a start and end time.

From: Robert Mazzeo <Robert.Mazzeo@cfpua.org>
Sent: Monday, February 25, 2019 11:03 AM
To: Robert Daughtry <Robert.Daughtry@cfpua.org>
Cc: David Mays <David.Mays@cfpua.org>
Subject: FW: Hurricane Florence SSOs

Robert,

I know we had a problem at both these sites but not sure how she wants me to answer for them? Dave do you have them on your sheet? Maybe we just go with what he has?

Robert (Bob) Mazzeo
Cape Fear Public Utility Authority
Pump Station Supervisor
O: 910-332-6446
F: 910-332-6434
C: 910-367-8043

From: Elizabeth Severt <Elizabeth.Severt@cfpua.org>
Sent: Friday, February 22, 2019 2:41 PM
To: Robert Mazzeo <Robert.Mazzeo@cfpua.org>; Ricky Bullard <Ricky.Bullard@cfpua.org>
Cc: Robert Daughtry <Robert.Daughtry@cfpua.org>
Subject: Hurricane Florence SSOs

Bob and Ricky

The two spills below were reported during Hurricane Florence and noted issues at pump stations. I found notes on the station getting fixed but did not find any times within Maximo, emails or working with Dave. Any chance you all may have something to indicate when the stations were operational again, so that we can provide an end date and time to the spills.

Thanks,
Elizabeth

9/17/2018		201802053	1265129	M/H at 1002 Cypress Dr and 2100 East Lake Shore Dr.	Manhole	5:00 AM	Hurricane Florence	Staff reported that Pump Station 2 was inundated due to flooding. At 9:44 am it was reported that both pumps in the station had tripped, CFPUA electrician was called to access. At 10:13 am staff received a request for a sump pump in order to be able to fix the problem. Staff pumped down the dry well and was able to get pump # 1 running on bypass. Motor # 2 was shorted to ground from being submerged. On 9/18 staff pulled pump # 2 to make repair. Station had generator power. On 9/19 staff reported generator continued to run, the pumps were operational and the wet well was high. Commercial power was restored to the station on 9/21.	Greenfield Lake
9/17/2018		201802062	1265129	M/H at 300 Block of Williamson Dr	Manhole	12:45 PM	Hurricane Florence	Staff responded and reported that the pump/control room at Pump Station 17A had water in it and the pumps and controls were completely submerged. Staff began pumping water out of the control room in able to get to the pumps. Staff was able to get pump #2 running and rewired the controls for pump # 2 to run off of a float and a 20 minute off delay relay.	Greenfield Lake

From: [Beth Eckert](#)
To: [Matthew Tribett](#)
Subject: Re: NHC EOC - ESF-3
Date: Saturday, September 15, 2018 7:09:03 PM

Matt

All of the issues should be sent or called into the emergency call center. They will be dispatched from there and dependent on what it is as to if they will respond at night with the hazards out there right now.

Robert and I talked and if you can forward Chris Benegasi, me and Robert the SSOs along with the time of the report that will help with us meeting our state reporting requirements.

Beth Eckert

On Sep 15, 2018, at 6:16 PM, Matthew Tribett <Matthew.Tribett@cfpua.org> wrote:

Thanks Beth.

Will any CFPUA crews be responding tonight?

Craig had just received a report from a citizen of a possible SSO at 14th and Grace.

How should I report the following types of issues to CFPUA? Should all route through CFPUA's EOC?

1. Main break investigations.
2. SSO investigations.
3. Single service issues.

As a note, during the last storm I worked, I received a lot of reports of potential SSOs that turned out to be bubbling storm drains.

Thanks,

Matt

From: Beth Eckert
Sent: Saturday, September 15, 2018 5:59 PM
To: Matthew Tribett <matthew.tribett@cfpua.org>
Cc: Florence <Florence@cfpua.org>
Subject: Re: NHC EOC - ESF-3

Matt I will be at Sweeney EOC and if you need to reach me call me at 910-524-4133

Beth Eckert

On Sep 15, 2018, at 5:55 PM, Matthew Tribett <Matthew.Tribett@cfpua.org> wrote:

All,

I have relieved Craig and will be at the NHC EOC ESF-3 seat tonight.

Please call or email or radio.

NHC Desk phone: 910-798-6803

Cell: 910-515-3947

Thanks,

Matt Tribett

From: [Christopher Benegasi](#)
To: [Cord Ellison](#); [Florence](#)
Subject: Re: Possible SSO
Date: Tuesday, September 18, 2018 6:07:42 PM

Crew is on the way.

Sent from my Verizon Smartphone
On Sep 18, 2018 6:06 PM, Cord Ellison <cord.ellison@cfpua.org> wrote:
Had someone call me about what they think may be a sewer overflow at 4928 Wrightsville Ave.
Supposed to be next to buffalo grocery.

Cord Ellison,
Chief Information Officer
Cape Fear Public Utility Authority
235 Government Center Drive
Wilmington, NC 28403
Work 910-799-6064
Fax 910-799-6066

From: [Gary McSmith](#)
To: [Beth Eckert](#)
Subject: Re: Sewer Spill on Woodlawn Avenue due to Sinkhole
Date: Sunday, September 16, 2018 8:18:46 PM

thanks

Best Regards,

Gary McSmith, P.E.

Assistant Director of Engineering
Cape Fear Public Utility Authority
235 Government Center Drive
Wilmington, NC 28403

910-332-6629 Desk
910-833-4197 Cell

From: Beth Eckert
Sent: Sunday, September 16, 2018 8:15:05 PM
To: Florence; Christopher Benegasi
Subject: Re: Sewer Spill on Woodlawn Avenue due to Sinkhole

Gary
FYI - Chris checked this one out and it is actually a city storm drain overflow not sanitary sewer.

Beth Eckert

On Sep 16, 2018, at 7:21 PM, Gary McSmith <Gary.Mcsmith@cfpua.org> wrote:

thanks

Best Regards,

Gary McSmith, P.E.

Assistant Director of Engineering
Cape Fear Public Utility Authority
235 Government Center Drive
Wilmington, NC 28403

910-332-6629 Desk
910-833-4197 Cell

From: Beth Eckert

Sent: Sunday, September 16, 2018 6:50:19 PM

To: Gary McSmith

Cc: Florence

Subject: Re: Sewer Spill on Woodlawn Avenue due to Sinkhole

I just spoke to Chris Benegasi he is having it checked out.

Beth Eckert

On Sep 16, 2018, at 6:46 PM, Gary McSmith <Gary.Mcsmith@cfpua.org> wrote:

Sinkhole Reported to City Streets

Information from 911 operator.

No address given

From: angie.hait@starnewsonline.com on behalf of [StarNews Advertising](#)
To: [Donna Pope](#)
Subject: Re: SSO Notice
Date: Friday, September 21, 2018 1:51:06 PM

Will do!

On Fri, Sep 21, 2018 at 1:47 PM Donna Pope <Donna.Pope@cfpua.org> wrote:

Thanks so much.

Affidavit to me at:

Donna S. Pope
CFPUA
235 Government Center Drive
Wilmington, NC 28403

(When the post office is able to deliver again.)

From: Peg Hall Williams
Sent: Friday, September 21, 2018 1:47 PM
To: StarNews Advertising <advertising@starnewsonline.com>
Cc: Donna Pope <donna.pope@cfpua.org>; Beth Eckert <beth.eckert@cfpua.org>
Subject: RE: SSO Notice

It is approved. Thanks! Peg

From: angie.hait@starnewsonline.com <angie.hait@starnewsonline.com> **On Behalf Of**
StarNews Advertising
Sent: Friday, September 21, 2018 1:45 PM
To: Peg Hall Williams <Peg.HallWilliams@cfpua.org>
Cc: Donna Pope <donna.pope@cfpua.org>; Beth Eckert <beth.eckert@cfpua.org>
Subject: Re: SSO Notice

Attached is your revised ad proof for Monday 9/24.

Deadline is at 2pm today. Please let me know ASAP if good to go

thanks

Angie

On Fri, Sep 21, 2018 at 12:34 PM Peg Hall Williams <Peg.HallWilliams@cfpua.org> wrote:

Hi Angie,

Thanks for sending me the proof. We need to update it with the following language:

During Hurricane Florence, Cape Fear Public Utility Authority (CFPUA) lost commercial power and experienced the failure of two generators at the Southside Wastewater Treatment Plant. Unfortunately, due to power loss and flooding, on September 14, 2018, approximately 5.25 million gallons of partially treated wastewater was released into the Cape Fear River. The failures occurred during the height of the storm when it was not safe for our employees to immediately address the situation. They had to wait until the winds dropped below 50 mph. As a result, the SSO could not be stopped for several hours.

CFPUA staff became aware of the bypass at approximately 7 am on September 14, 2018, and immediately contacted the equipment representative for an emergency repair. The bypass stopped at about 4:30 pm.

The wastewater was partially treated because it flowed through all treatment except the secondary clarifier and disinfection processes.

The initial news release was issued on September 14, 2018, in compliance with North Carolina General Statute 143-215.1C (a portion of the Clean Water Act of 1999). CFPUA has also reported this to the North Carolina DEQ Emergency Hotline.

While CFPUA does not expect additional Florence-related impacts on our wastewater system at this time, we are reminded of the significant raw water main

break that happened immediately after Hurricane Matthew. Our employees will continue to closely monitor our water and wastewater systems for any unseen or future impacts.

Thanks,

Peg Hall Williams, APR

Chief Communications Officer

Cape Fear Public Utility Authority

235 Government Center Drive, Wilmington, NC 28403

Phone: 910-332-6704

www.cfpua.org

From: angie.hait@starnewsonline.com <angie.hait@starnewsonline.com> **On Behalf Of**
StarNews Advertising
Sent: Thursday, September 20, 2018 8:24 AM
To: Peg Hall Williams <Peg.HallWilliams@cfpua.org>
Cc: Donna Pope <donna.pope@cfpua.org>; Beth Eckert <beth.eckert@cfpua.org>
Subject: Re: SSO Notice

Proof attached. Please let me know if ok by 12pm today

thanks!

Angie

On Wed, Sep 19, 2018 at 3:07 PM, Peg Hall Williams <Peg.HallWilliams@cfpua.org> wrote:

Could you please publish the following notice? Also, could you please let us know when this will be printed?

Blurb for newspaper:

During Hurricane Florence, Cape Fear Public Utility Authority (CFPUA) experienced the failure of two generators at the Southside Wastewater Treatment Plant. The plant discharged 5.25 million gallons of partially treated wastewater to the Cape Fear River. For this event, partially treated means that wastewater flowed through all treatment except the secondary clarifier and disinfectant.

CFPUA staff were notified of the bypass at approximately 7 am on September 14, 2018. Staff immediately contacted the equipment representative for an emergency repair. The bypass stopped at about 4:30 pm.

The initial news release was issued on September 14, 2018, in compliance with North Carolina General Statute 143-215.1C (a portion of the Clean Water Act of 1999). CFPUA has also contacted the North Carolina DEQ Emergency Hotline.

If you have any billing questions, Donna will be back in the office tomorrow. The affidavit of publication needs to be sent to Donna Pope at donna.pope@cfpua.org.

Thank you for taking care of this for us. I hope you fared well during the past week.

Take care,

Peg Hall Williams, APR

Chief Communications Officer

Cape Fear Public Utility Authority

235 Government Center Drive, Wilmington, NC 28403

Phone: 910-332-6704

www.cfpua.org

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Advertising Department



StarNews Media

1003 S. 17th St. Wilmington, NC 28401

P: (910) 343-2349

F: (910) 343-2207

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From: [Robert Daughtry](#)
To: [Beth Eckert](#); [Elizabeth Severt](#)
Subject: RE: SSO spreadsheet update 2-25-19.xlsx
Date: Monday, February 25, 2019 2:22:01 PM
Attachments: [SSO spreadsheet update 2-25-19.xlsx](#)

Beth I am good with what has been reported in this spreadsheet. I think this is the best we can do based on the records we have. I feel the estimates are higher than what probably escaped from the system.

Robert Daughtry, CO, CS 4
Collection System Superintendent
633 Groundwater Way
Wilmington NC 28411
Ph. (910)332-6637

From: Beth Eckert <Beth.Eckert@cfpua.org>
Sent: Monday, February 25, 2019 1:51 PM
To: Robert Daughtry <Robert.Daughtry@cfpua.org>; Elizabeth Severt <Elizabeth.Severt@cfpua.org>
Subject: SSO spreadsheet update 2-25-19.xlsx

From: [Erin Tremblay](#)
To: [Elizabeth Severt](#)
Subject: RE: SSO Stat/NPDES
Date: Friday, April 12, 2019 8:58:00 AM

Ok great. Thank you!

Erin Tremblay
Public Environmental Policy Specialist
Cape Fear Public Utility Authority
910-332-6652

From: Elizabeth Severt <Elizabeth.Severt@cfpua.org>
Sent: Friday, April 12, 2019 8:34 AM
To: Erin Tremblay <Erin.Tremblay@cfpua.org>
Cc: Beth Eckert <Beth.Eckert@cfpua.org>
Subject: RE: SSO Stat/NPDES

Erin,

Bo got the report working this morning. Since December 2013 when the consent order went into effect 69% of SSO resulted in 100 gallons or less impacting the environment. If we take out the spills that occurred during Hurricane Florence that number would be 77%.

Let me know if you need anything else.

Elizabeth

From: Erin Tremblay <Erin.Tremblay@cfpua.org>
Sent: Thursday, April 11, 2019 10:58 AM
To: Elizabeth Severt <Elizabeth.Severt@cfpua.org>
Subject: RE: SSO Stat/NPDES

Oh no. Well if it's too much trouble, I can work on changing around the paper. Just let me know.

Erin Tremblay
Public Environmental Policy Specialist
Cape Fear Public Utility Authority
910-332-6652

From: Elizabeth Severt <Elizabeth.Severt@cfpua.org>
Sent: Thursday, April 11, 2019 10:32 AM
To: Erin Tremblay <Erin.Tremblay@cfpua.org>
Subject: RE: SSO Stat/NPDES

Erin,

It may take me a little bit to get this to you. The Maximo report I would run to get the non-reportable SSOs is not working properly right now. I have sent Bo an email requesting help to get that working again. Hopefully he can get that back up and running quickly.

-Elizabeth

From: Erin Tremblay <Erin.Tremblay@cfpua.org>
Sent: Thursday, April 11, 2019 8:51 AM
To: Elizabeth Severt <Elizabeth.Severt@cfpua.org>
Subject: RE: SSO Stat/NPDES

Yes please! And thanks for the below info.

Should I confirm the no NOVs since 2012 stat with Milton?

Erin Tremblay
Public Environmental Policy Specialist
Cape Fear Public Utility Authority
910-332-6652

From: Elizabeth Severt <Elizabeth.Severt@cfpua.org>
Sent: Thursday, April 11, 2019 8:24 AM
To: Erin Tremblay <Erin.Tremblay@cfpua.org>
Subject: RE: SSO Stat/NPDES

The final report wont have any details on the NPDES permits since the consent decree only covered the Collection Systems. To the best of my knowledge we have not had any NOVs related to the NPDES permits since 2012.

The SSO stat you have most likely has changed especially since Florence. I have the data, just need to crunch the numbers to update it for you. That wasn't something we tracked all the time, just a fun fact we discovered while creating the final report. Do you want the percent of spills that resulted in less than 100 gallons hitting surface waters since 2013? Below is the updated 5 year SSO Stat.

CFPUA Collection System - NC Reportable Sanitary Sewer Overflows

Last 5 years Prior to CFPUA compared to Most Recent 5 Years

Owner	Total Volume	Volume to Surface Waters	# of Events
July 1, 2003- June 30, 2008	11,240,995	8,223,170	156
July 1 2013, - June 30, 2018	590,288	577,189	64

% Reduction	95%	93%	59%
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Let me know if you need anything else.

Thanks,

Elizabeth A. Severt

Environmental Program Manager

Cape Fear Public Utility Authority

235 Government Center Drive

Wilmington, NC 28403

910 332 6420 Tel 910 332 6730 Fax

www.cfpua.org

From: Erin Tremblay <Erin.Tremblay@cfpua.org>

Sent: Wednesday, April 10, 2019 4:40 PM

To: Elizabeth Severt <Elizabeth.Severt@cfpua.org>

Subject: SSO Stat/NPDES

Hi Elizabeth,

This is the most recent stat I have been able to find on SSO volume – “only 75% of the SSOs that have occurred since the consent decree began in December 2013 have resulted in less than 100 gallons being released to the environment.” It’s from the Final Report you sent me last year. I’m assuming we have a more updated stat now, especially since Florence..?

I am also wondering if we have had any NPDES NOVs? If so, when? I didn’t see anything about them in the Final Report. Milton sent me the actual permits, but I didn’t see anything about any NOVs we might have had in them either.

This information will be included in the Environmental Booklet for Earth Day.

Thanks!

Erin Tremblay

Public Environmental Policy Specialist

Cape Fear Public Utility Authority

910-332-6652

From: [Beth Eckert](#)
To: [Morella King](#); [DMF ncdenr](#)
Cc: [Frank Styers](#); [Robert Daughtry](#); [Dean Hunkel](#); [Elizabeth Severt](#); [Christopher Benegasi](#)
Subject: RE: SSO's
Date: Tuesday, September 25, 2018 1:16:00 PM

Morella / Dean

In reviewing the information in the BIMS system the SSOs we submitted for the 15th below have not been entered. I am just following up to ensure you have them. As you can see below the notification was send at 654 am on the 16th.

We still would like to be able to lump together these events into one event due to Hurricane Florence if at all possible.

Thanks,
Beth Eckert

From: Beth Eckert
Sent: Sunday, September 16, 2018 6:54 AM
To: Morella King <morella.sanchez-king@ncdenr.gov>; DMF ncdenr <DMF.SpillNotification@ncdenr.gov>
Cc: Frank Styers <frank.styers@cfpua.org>; Robert Daughtry <robert.daughtry@cfpua.org>; Dean Hunkel <Dean.hunkel@ncdenr.gov>
Subject: FW: SSO's

Morella
While evaluating the system, checking pump stations and their fuel situations yesterday we identified several areas around pump stations where either the manholes near the station or the station itself. The information we have is listed below along with the status when we left them. We do not have any estimates on volumes as they may be ongoing and based on the expansion over night of the flooding within Wilmington and our service area, there is probably other issues out there that we are not aware of. We will have limited access to stations and the system today due to the flooding but will update you when we have more information.

Also, Southside WWTP is back on commercial power. Northside is still on generator and we are working with the EOC to get a fuel delivery for the plants as well as the generators at the pump stations.

Thanks, Beth Eckert

Sent from [Mail](#) for Windows 10

From: Christopher Benegasi
Sent: Saturday, September 15, 2018 10:11:24 PM

To: Beth Eckert
Cc: Robert Daughtry
Subject: SSO's

9/15/18

8:00am M/H outside of Athens Ln P/S - Flooding

12:30pm M/H outside of Uppereach P/S – No Power – Brought generator and pumped down stopped at 1:00pm

1:50pm M/H outside of Towels Rd P/S – Flooding

3:15pm M/H outside of Landfall 2 P/S off of Pembroke Jones Dr – Generator ran out of fuel – Fueled generator and pumped down stopped at 5:15pm

3:30pm C/O for 1018 43rd st – System inundation

Chris Benegasi
Collections System Supervisor
Christopher.benegasi@cfpua.org
O: 910-332-6496
M: 910-367-8009

From: [Cindee Wolf](#)
To: [Steven Styers](#)
Cc: [Milton Vann](#)
Subject: RE: SSWWTP - Hurricane Florence Generator Failure
Date: Friday, March 1, 2019 9:25:25 AM

Perfect. Thank you. Just the information I needed.

From: Steven Styers <Steven.Styers@cfpua.org>
Sent: Friday, March 1, 2019 9:18 AM
To: Cindee Wolf <Cindee.Wolf@cfpua.org>
Cc: Milton Vann <Milton.Vann@cfpua.org>
Subject: RE: SSWWTP - Hurricane Florence Generator Failure

Cindee,

The official total for the spill was 5.25 million gallons, this is an estimation based on conditions before and after the power interruption and the duration.

The generator stopped producing power because the voltage regulator failed. This was cause by rainwater intrusion through the cooling air intake and soaking the controls.

The rainwater entered the enclosure through the intake because of the 90 mph northly winds and heavy rain.

Hope this helps explain, anything else please let me know.

Steve Styers
Plant Supervisor
Southside WWTP CFPUA

From: Cindee Wolf <Cindee.Wolf@cfpua.org>
Sent: Friday, March 1, 2019 8:48 AM
To: Steven Styers <Steven.Styers@cfpua.org>
Subject: SSWWTP - Hurricane Florence Generator Failure

Steve,

I'm working on trying to get FEMA to fund the new generator enclosure. Can you tell me approximately how many gallons of sewage were spilled during the outage? Are there any other peripheral issues you might attribute to the controls being down? Thanks.



Cindee Wolf

Capital Improvements Program - Project Manager

Direct Tel. / 910-332-6721

From: [Gary McSmith](#)
To: [Florence](#); [Christopher Benegas](#)
Subject: Reported SSO at 7104 Lipscomb (call to 911 operator)
Date: Sunday, September 16, 2018 10:18:06 PM

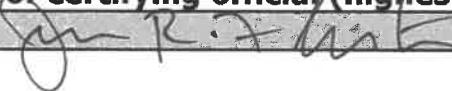
Certification

2018 ESI Annual Report

Certification statement:

The certifying official below acknowledges that the information provided in this report is truthful to the best of his/her knowledge. This annual report must cover the scope of the organization represented in the application. The undersigned accepts and hereby waives any right to appeal any decision made by the N.C. Department of Environmental Quality regarding participation in, or termination from, this program.

Name of certifying official (highest management representative at facility):



Title

EXECUTIVE DIRECTOR

Date

5/14/19

End of Report



Form WWTP-BYPASS/UPSET
Treatment Plant (WWTP) Bypass/Upset Reporting Form 5 Day Report
PART I

This form shall be submitted to the appropriate DWQ Regional Office within five days of the first knowledge of the unanticipated bypass or upset.

Permit Number: NC 0023 973 (Always use treatment plant permit number)

Facility: MICHAEL MAFFITT "SOUTHSIDE"

Incident # _____

Owner: CAPE FEAR PUBLIC UTILITY

Region: WILMINGTON

City: WILMINGTON

County: NEW HANOVER

SPECIFIC location of the treatment units bypassed or where the upset occurred in the facility:

HEAD WORKS + AERATION BASIN + SCREW PUMPS

Was the WWTP compliant with permit requirements? Yes No Unknown

Was samples be taken during bypass?: Yes No Unknown

Incident Started Dt: 09-14-2018 Time: 0720 hh:mm AM/PM Incident End Dt: 09-14-2018 Time: 1620 hh:mm AM/PM

Estimated volume of the Bypass/Upset: 5.25 million gallons

Describe how the volume was determined: AVE OF FLOW FROM BEGINNING TO END X DURATION

Weather conditions during bypass/upset event: HURRICANE

Did Bypass/Upset reach surface waters? Yes No Unknown Volume reached surface waters (gallons): 5.25 MBD

Surface water name: CAPE FEAR RIVER

Did the bypass/upset result in a fish kill? Yes No Unknown If Yes, estimated number of fish killed? _____

SPECIFIC cause(s) of the Bypass/Upset: UTILITY POWER FAILED 0100,

MAIN GENERATOR FAILED 0015, SCREW PUMP GENERATOR FAILED 0720.

UNABLE TO GET REPAIRS DONE QUICKLY DUE TO HURRICANE.

As a representative for the responsible party, I certify that the information contained in this report is true and accurate to the best of my knowledge.

Person submitting claim: STEVEN SMYERS

Signature: [Signature]

Title: SUP/ONC

Telephone Number: 90-332-6578

Any additional information desired to be submitted should be sent to the appropriate Division Regional Office within five days of first knowledge of the Bypass with reference to the incident number (the incident number is only generated when electronic entry of this form is completed, if used).



Form WWTP-BYPASS/UPSET
Treatment Plant (WWTP) Bypass/Upset Reporting Form 5 Day Report
PART I

This form shall be submitted to the appropriate DWQ Regional Office within five days of the first knowledge of the unanticipated bypass or upset.

Permit Number : NC 0023 973 (Always use treatment plant permit number)

Facility: M'Kean Maffitt "Southside"
Owner: CAPE FEAR PUBLIC UTILITY
City: WILMINGTON

Incident # _____
Region: WILMINGTON
County: NEW HANOVER

SPECIFIC location of the treatment units bypassed or where the upset occurred in the facility:

OUTSIDE OF DEWATERING BUILDING

Was the WWTP compliant with permit requirements? Yes No Unknown

Was samples be taken during bypass?: Yes No Unknown

Incident Started Dt: 09-12-2018 Time: 0930 hh:mm AM/PM _____ Incident End Dt: 09-12-2018 Time: 0945 hh:mm AM/PM _____

Estimated volume of the Bypass/Upset: 500 gallons

Describe how the volume was determined: DURATION - FLOW VELOCITY - WIDTH OF FLOW PATTERN

Weather conditions during bypass/upset event: SUNNY - HOT

Did Bypass/Upset reach surface waters? Yes No Unknown Volume reached surface waters (gallons): 90%

Surface water name: CAPE FEAR RIVER

Did the bypass/upset result in a fish kill? Yes No Unknown If Yes, estimated number of fish killed?

SPECIFIC cause(s) of the Bypass/Upset:

A FILTRATE PUMP CONNECTED TO A PORTABLE DEWATERING PRESS FAILED.
THE CONTAINMENT AREA OVERFLOWED INTO A STORM DRAIN 100 FEET AWAY.

As a representative for the responsible party, I certify that the information contained in this report is true and accurate to the best of my knowledge.

Person submitting claim: STEVEN STYERS

Signature:

Title: SUPERVISOR / ORC

Telephone Number: 910-332-6578

Any additional information desired to be submitted should be sent to the appropriate Division Regional Office within five days of first knowledge of the Bypass with reference to the incident number (the incident number is only generated when electronic entry of this form is completed, if used).

09/14/18

Southside WWTP went to generator at 1700 on the 13th and experienced a failure of the generators at 0630 on the 14th. Attempts internally to restart the generators were not successful and the Southside WWTP began experiencing a bypass of the system at approximately 0640 on the 14th. At this time the bypass is an ongoing event. Gregory Poole stationed a local representative and is currently in route to the plant to address the failure and restart the generator.

1530 Gregory Poole Tech arrived at SSWWTP. After spending 20-30 minutes investigating the main generator, he determined that the voltage regulator had failed. He was able to located a regulator, but travel time will be around 3 hours to get the part on site. Hopefully, we will have this unit back in operation tonight. He also inspected the screw pump generator and was able to make on site repairs. 1620 the screw pump generator was returned to service and ended the plant by-pass status.

Calculated volume due to lack of power to monitor flow. Volumes were estimated based on the flow when power was lost and when the power was restored times the length of time bypass occurred. By pass estimated at 5.25 million gallons discharged during BY-PASS.

9/15/18

8:00am M/H outside of Athens Ln P/S - Flooding

12:30pm M/H outside of Upper reach P/S – No Power – Brought generator and pumped down stopped at 1:00pm

1:50pm M/H outside of Towels Rd P/S – Flooding

3:15pm M/H outside of Landfall 2 P/S off of Pembroke Jones Dr – Generator ran out of fuel – Fueled generator and pumped down stopped at 5:15pm

3:30pm C/O for 1018 43rd st – System inundation

9/16/18

8:00am M/H at Windchime Dr – P/S 36 Generator tripped out – Restarted generator stopped at 9:30am

11:00am M/H at 430 Sharon Dr – P/S 39 Inundated due to flooding

2:00pm 15th & Ann and 15th & Nun – Gravity mains Inundated due to flooding

8:15pm M/H at Woodlawn Ave – P/S 14 Inundated due to flooding

9/17/18

5:00am M/H at 1002 Cypress Dr – P/S 2 Inundated due to flooding

8:30am M/H at 2100 East Lake Shore Dr – P/S 2 Inundated due to flooding

9:30am M/H at 2200 Chestnut St – System Inundation due to flooding along Burnt Mill Creek Outfall

10:40am M/H at P/S 103 Windward Oaks – Generator tripped out – Reset Generator stopped at 1:40pm

12:00pm M/H at Caneel Cove Dr – Power outage at P/S 30

12:45pm M/H at 300 Block of Williamson Dr – P/S 17A Control panel flooded

1:00pm M/H at 110 Travelers Ct – P/S 130 pump tripped out – Reset pump stopped at 2:00pm

2:30pm M/H at Prestwick Ln – Gravity main inundated due to flooding

9/18/18

7:10am M/H at 308 Colquitt Ln – P/S 129 Pump stopped up and had to be pulled and cleaned. Due to flooding 1 pump was not able to keep up with flow. Stopped at 12:30pm

9:30am M/H at 2000 Block of Princess Place Dr – Burntmill Creek outfall inundated due to flooding.

11:30am 1400 Block of Market St – Storm drain washed road out causing sewer main to collapse. Crews are on site making repair.

Sanitary Sewer Overflows Reported by CFPUA During/After Hurricane Florence

Date Incident Started	Incident End Date	BIMS Number	SSO Site	Source	Time Incident Started	Incident End Time	Gallons spilled	Gallons to Surface Waters	Cause	Actions taken to Repair / Resolve the Cause	Watershed Basin
9/15/2018	9/17/2018	201802837	M/H outside of Athens Lane Pump Station	Manhole	8:00 AM	due to conditions in the area staff were unable to determine if an SSO occurred in the system that feeds this station. There was no evidence of sewer leaving the wetwell at the station			Hurricane Florence	At 8:00 am on 9/15 crews reported flooding in the area of the pump station and noted that the pumps at the station were having a hard time keeping pace with the flow and the wet well was rising. Due to flooding in the area, crews were unable to confirm if sanitary sewer was leaving the system. There was no change in the area on 9/16 when crews visited the station. During the 9/17 site visit the flood waters had receded enough to enable the station to manage the increase in volume and crews reported the wet well was high, but the generator was running with 1/4 tank of fuel. On 9/18 the generator was refueled and running, wet well levels had dropped.	Smith Creek
9/15/2018	9/15/2018	201802838	M/H outside of Upper Reach Pump Station	Manhole	12:30 PM	1:00 PM	150	150	Hurricane Florence	Station lost commercial power and no generator was on site. A portable generator was brought to the site and the station was pumped down. Staff was able to estimate volume of this spill from a picture taken of the site. A bolt down manhole was weeping, staff estimated flow to be about 5 gpm x 30 minutes = 150 gallons spilled, none was captured.	Hewlett's Creek
9/15/2018		201802839	M/H outside of Towles Road Pump Station	Manhole	1:50 PM	due to conditions in the area staff were unable to determine if an SSO occurred in the system that feeds this station. There was no evidence of sewer leaving the wetwell at the station			Hurricane Florence	At 1:50 pm on 9/15 crews reported flooding in the area of the pump station. The station maintained commercial power until 9/17, there was no generator on site and site was visited daily. On 9/18 crews reported still no power and the wet well was about 3 inches from the top. Commercial power was restored on 9/19. Due to Flood waters in the area crews were unable to confirm if sanitary sewer was leaving the system. SCADA at this station was damaged during the storm but it was visited daily.	Intercoastal Waterway
9/15/2018	9/15/2018	201802840	M/H outside of Landfall 2 Pump Station	Manhole	3:15 PM	5:15 PM	1800	1800	Hurricane Florence	On 9/15 at 3:15 pm it was reported that the manhole outside of Landfall 2 pump station was overflowing. It was identified that the generator ran out of fuel, crews were able to get the generator refueled and pump down the station stopping the spill at 5:15 pm. The generator maintained the station until power was restored on 9/17. Staff estimated the flow to be about 15 gpm X 120 mins = 1800 gallons, none was captured.	Intercoastal Waterway
9/15/2018		201802841	C/O for 1018 43rd Street	Cleanout	3:30 PM	Unknown - unable to estimate or confirm based on conditions or records review			Hurricane Florence	At 3:30 pm on 9/15 staff received a call from emergency call center for sewer coming out of a clean out at 1018 43rd St. Staff was onsite in the area at 4:08 pm to investigate and reported system inundation due to flooding in the area. System returned to normal when flood waters receded. No additional reports from customer were received after staff responded on 9/15/18.	Burnt Mill Creek
9/16/2018	9/16/2018		M/H at Windchime Dr	Manhole	8:00 AM	9:30 AM	900	900	Hurricane Florence	On 9/16 at 8:00 am staff received a call from a local utility contractor reporting a possible overflow. Crews responded identifying that the generator at Pump Station 36 has tripped out. Staff restarted the generator stopping the spill at 9:30 am, the generator continue to run until commercial power was restored on 9/17. Staff was able to estimate volume of spill from a picture the utility contractor emailed on 9/16. Staff estimated flow to be about 10 gpm x 90 minutes = 900 gallons spilled, none was recovered.	Barnards Creek

Date Incident Started	Incident End Date	BIMS Number	SSO Site	Source	Time Incident Started	Incident End Time	Gallons spilled	Gallons to Surface Waters	Cause	Actions taken to Repair / Resolve the Cause	Watershed Basin
9/16/2018	9/16/2018		M/H at 430 Sharon Drive	Manhole	11:00 AM	Based on a records review this incident was not an SSO it was a water line break.			Hurricane Florence	Pump station staff observed some bubbling in the area and reported Pump Station 39 was inundated due to flooding. During the station visit on 9/17 staff reported wet well levels were ok. Upon further review of records, a customer called reporting a possible water line break at this location. CFPUA construction crews responded and confirmed a water main break occurred at this location and repaired the line on 9/17 maximo work order # 1267060 documents this repair.	Hewletts Creek
9/16/2018	9/17/2018		15th & Ann and 15th & Nun	Manhole	2:00 PM	see comment to the right			Hurricane Florence	Staff reported manholes weeping at the intersections of 15th & Ann and 15th & Nun. Staff indicated that the gravity mains in the Burnt Mill Creek outfall were inundated due to flooding. System returned to normal once flood waters receded which we believe was on 9/17. No additional reports were received for this location. Based on the 2 manholes that were reported as weeping and an estimated 24 hour time period until the flooding receded from the reported time and a 5 gallon per minute estimate on a weeping manhole - we estimate approximately 14,400 gallons - 5 gpm X 24 hrs(1440 minutes) = 7200 X 2 manholes = 14,400 gallons - this estimate is purely a guess using best professional judgement based on a records review and a worst case scenario of 24 hours	Burnt Mill Creek
9/16/2018	9/17/2018	201802047	M/H at Woodlawn Ave	Manhole	8:15 PM	see comment to the right			Hurricane Florence	Staff reported a manhole weeping on Woodlawn Ave. It was noted that Pump Station 14 was inundated due to flooding, but it was operational throughout the event. Station visited daily and the system returned to normal when flooding receded on 9/17. Based on the manhole that was reported as weeping and an estimated 24 hour time period until the flooding receded from the reported time and a 5 gallon per minute estimate on a weeping manhole - we estimate approximately 7,200 gallons - 5 gpm X 24 hrs(1440 minutes) = 7200 gallons - this estimate is purely using best professional judgement a guess based on records review	Greenfield Lake
9/17/2018	9/17/2018	201802053	M/H at 1002 Cypress Dr and 2100 East Lake Shore Dr.	Manhole	estimated time of 10:30:00 AM	9:44 AM	920	920	Hurricane Florence	Staff reported that Pump Station 2 was inundated due to flooding. At 9:44 am it was reported that both pumps in the station had tripped, CFPUA electrician was called to access. At 10:13 am staff received a request for a sump pump in order to be able to fix the problem. Staff pumped down the dry well and was able to get pump # 1 running on bypass. Based on staff interviews pump #1 is estimated to have been returned to service approximately 10:30 am and able to pump down the wet well. Motor # 2 was shorted to ground from being submerged. On 9/18 staff pulled pump # 2 to make repair. Station had generator power. On 9/19 staff reported generator continued to run, the pumps were operational and the wet well was high but no indication of water leaving the station. Commercial power was restored to the station on 9/21. Although manholes where SSO reported could not be seen based on customer reports they are estimated at 10gpm for the time pump #1 was out of service which is estimated at 46 minutes which would calculate to a volume spilled of 460 gallons at 2 separate manholes for a total estimated incident volume of 920 gallons -	Greenfield Lake
9/17/2018	9/17/2018	201802055	M/H at Pump Station 103 Windward Oaks	Manhole	10:40 AM	1:40 PM	900	900	Hurricane Florence	Staff reported loss of generator power at Pump Station 103. Crews identified that the generator had a bad oil pressure switch, there were able to get the generator running and pump down the station stopping the spill at 1:40 pm. Then generator continued to run until commercial power was restored on 9/19. Staff estimated the flow to be 5 gpm X 180 min = 900 gallons, none was recovered.	Hewletts Creek

Date Incident Started	Incident End Date	BIMS Number	SSO Site	Source	Time Incident Started	Incident End Time	Gallons spilled	Gallons to Surface Waters	Cause	Actions taken to Repair / Resolve the Cause	Watershed Basin
9/17/2018	9/17/2018	201802058	M/H at 2200 Chestnut St	Manhole	9:30 AM	see comment to the right			Hurricane Florence	Staff reported a manhole weeping at 2200 Chestnut St. and indicated that the system was inundated due to flooding along the Burnt Mill Creek Outfall. System returned to normal when flood waters receded. Based on records review it appears flooding receded on 9/17 so using a 12 hour time period, which would be worst case scenario, and calculating the weeping manhole at 5 gpm we can guess using best professional judgement that the spill volume was an estimated 3,600 gallons. 5gpm X 12 hours(720 minutes) = 3,600 gallons	Burnt Mill Creek
9/17/2018	9/17/2018	201802061	M/H at Caneel Cove Dr	Manhole	12:00 PM	12:30 PM	150	150	Hurricane Florence	Staff report manhole weeping outside of Pump Station 30. It was reported that there was a commercial power bump causing the onsite generator lost a phase. Generator was repaired and providing power to the pump station by 12:30 pm. Staff estimate flow to be about 5 gpm x 30 mins = 150 gallons spilled, none was recovered.	Hewletts Creek
9/17/2018	9/17/2018	201802062	M/H at 300 Block of Williamson Dr	Manhole	12:45 PM	Estimated time of 2 pm	375	375	Hurricane Florence	Staff responded and reported that the pump/control room at Pump Station 17A had water in it and the pumps and controls were completely submerged. Staff began pumping water out of the control room in able to get to the pumps. Staff was able to get pump #2 running and rewired the controls for pump # 2 to run off of a float and a 20 minute off delay relay.	Greenfield Lake
9/17/2018	9/17/2018	201802065	M/H at 110 Travelers Ct	Manhole	1:00 PM	2:00 PM	300	300	Hurricane Florence	Staff reported a manhole weeping at 110 Travelers Ct. and reported that a pump had tripped at Pump Station 130. Staff reset the pump and the spill stopped at 2:00 pm. Staff estimated flow to be about 5 gpm x 60 mins = 300 gallons spilled, none was recovered.	Lords Creek
9/17/2018		201802066	M/H at Prestwick Ln	Manhole	2:30 PM	see comment to the right			Hurricane Florence	Staff report a manhole weeping at Prestwick Ln. Staff indicated the gravity main was inundated due to flooding. System returned to normal when flood waters receded. Records review indicates flooding receded on 9/17 so worst case scenario is the manhole overflowed for 9.5 hours at 5 gpm making a guess using best professional judgement a max of 2,850 gallons could have been spilled at this location	Intercoastal Waterway
9/18/2018	9/18/2018	201802204	M/H at 308 Colquitt Ln	Manhole	7:10 AM	12:30 PM	1300	1300	Hurricane Florence	Staff report a manhole weeping at 308 Colquitt Ln. It was identified that a pump stopped at Pump Station 129, due to flooding in the area one pump was not sufficient to keep up with the flow. Staff pulled pump #2 cleaned pump of debris and replaced it. The station was returned to service and spill stopped at 12:30pm. Staff estimated flow to be about 5 gpm x 260 mins = 1300 gallons spilled, none was recovered.	Lords Creek
9/18/2018		201802201	M/H 2000 Block of Princess Place Dr	Manhole	9:30 AM	after furthe rinvestigatiotn determined to not be an SSO			Hurricane Florence	Staff had a report of a manhole weeping in the 2000 block of Princess Place Dr. After further investigation this was determined to be an interference storm drain manhole and water was leaving the storm drain system not the sewer system.	Burnt Mill Creek
9/18/2018	9/18/2018	201802200	1400 Block of Market St	Main	11:30 AM	6:00 PM	10500	10500	Hurricane Florence	A near by storm drain failed and washed the road out causing the sewer main to collapse. CFPUA construction crews responded and made repairs the to main. Approximately 10,500 gallons of sewer was spilled, none was recovered.	Burnt Mill Creek
9/19/2018	9/19/2018	201802544	Halcyon Lane and Avenel SD	Cleanout	6:30 PM	7:00 PM	300	300	Hurricane Florence	Pump Station 139 had high wet well due to flooding in the area. Appears that a clean out cap had been removed causing the clean out to run over. Cap was replaced stopping the spill at 7:00 pm. Staff estimated flow to be about 10 gpm x 30 mins = 300 gallons spilled, none was recovered.	Intercoastal Waterway

Date Incident Started	Incident End Date	BIMS Number	SSO Site	Source	Time Incident Started	Incident End Time	Gallons spilled	Gallons to Surface Waters	Cause	Actions taken to Repair / Resolve the Cause	Watershed Basin
9/20/2018	9/20/2018	201802595	M/H at 4th & Wooster and 2nd & Dawson	Manhole	8:00 AM	9:00 AM	300	300	Hurricane Florence	Staff report a manholes weeping at 4th & Wooster and 2nd & Dawson. Staff identified that Pump Station 13 had commercial power but was down a phase. Since the Pump Station was still receiving power it did not automatically transfer to generator. Crews transferred to generator power stopping the spill at 9:00 am. Staff estimated flow to be about 5 gpm x 60 mins = 300 gallons spilled, none was recovered.	Cape Fear River



Cape Fear Public Utility Authority

Stewardship. Sustainability. Service.

During Hurricane Florence, Cape Fear Public Utility Authority (CFPUA) lost commercial power and experienced the failure of two generators at the Southside Wastewater Treatment Plant. Unfortunately, due to power loss and flooding, on September 14, 2018, approximately 5.25 million gallons of partially treated wastewater was released into the Cape Fear River. The failures occurred during the height of the storm when it was not safe for our employees to immediately address the situation. They had to wait until the winds dropped below 50 mph. As a result, the SSO could not be stopped for several hours.

CFPUA staff became aware of the bypass at approximately 7 am on September 14, 2018, and immediately contacted the equipment representative for an emergency repair. The bypass stopped at about 4:30 pm.

The wastewater was partially treated because it flowed through all treatment except the secondary clarifier and disinfection processes.

The initial news release was issued on September 14, 2018, in compliance with North Carolina General Statute 143-215.1C (a portion of the Clean Water Act of 1999). CFPUA has also reported this to the North Carolina DEQ Emergency Hotline.

While CFPUA does not expect additional Florence-related impacts on our wastewater system at this time, we are reminded of the significant raw water main break that happened immediately after Hurricane Matthew. Our employees will continue to closely monitor our water and wastewater systems for any unseen or future impacts.

WN-2105962

PROOF O.K. BY: _____ O.K. WITH CORRECTIONS BY: _____

PLEASE READ CAREFULLY • SUBMIT CORRECTIONS ONLINE

WN-2105962 (100%)

ADVERTISER: CAPE FEAR PUBLIC UTILITY

SALES PERSON: WNWC23

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PROOF CREATED AT: 9/21/2018 12:40:35 PM

NEXT RUN DATE: 09/24/18

PROOF DUE: 09/21/18 11:59:55

Planned Work Scope for 9/17/18 – 9/24/18

Right-of-Way

Clearing Trees:

- Landfall 6
- Pages Creek
- Country Haven
- Bradley Creek Outfall
- PS-10 Smith Street
- Heritage Park
- Lords Creek 1
- Kaylie's Cove

- Monitor & Fuel Pumps at PS-8 Shipyard and College
- Monitor & Fuel Pumps at Parkway Dr (By Hugh Mcrae Park)
- Check outfall at Hoggard (Inspect)
- Check Smith Creek Branch Outfall (Inspect)

Collections Crew

- Haul fuel for pump station generators
- Start roving and responding to SSO calls
- Run pump station routes as needed
- Pump and haul areas if needed

Pump Station Crews

- Check for commercial power
- Install Murphy system & Art to Cross Aging Road
- Repair any needs at pump stations
- Government Center Drive / Check generator
- Monitor continuing issues as they arise and address them